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ABSTRACT

The Task Group on Gender-Focused Research was established to raise awareness and interest in gender as a variable in addictions research at the Addiction Research Foundation (ARF) in Ontario (Canada). Recognizing that much of the research on substance abuse has focused on males, the Task Group was charged with providing a basis for the development of research and program plans related to gender issues, and operated under a dual mandate: (1) consider the needs and opportunities in gender-focused research within the scope of ARF's purpose, including, but not limited to, research on alcohol, tobacco, and other drug use and problems in female populations; and (2) examine the relative priority of different lines of research for ARF. The investigation into gender biases in existing research revealed a strong male focus in research. Some ways suggested to correct this slant include using research samples that include both sexes, studying women specifically, and not generalizing results to both sexes with a unisexual sample. For the topic of gender issues in selected areas of research, an examination was made of epidemiology, including patterns of use and the health and social consequences of use; gender roles and interactions; prevention; biological research; and treatment modalities and treatment systems. Each section of the report profiles opportunities for research at ARF and recommendations on gender-based research and research methodology at ARF are elaborated at the conclusion. Four appendices list research questions, current policies on gender research, and other information. (Contains 87 references.) (RJM)

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GENDER ISSUES IN ADDICTIONS RESEARCH

The Report Of The Task Group On Gender-Focused Research

ADDICTION RESEARCH FOUNDATION
Toronto Canada
March 1994

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GENDER ISSUES IN ADDICTIONS RESEARCH

The Report Of The Task Group On Gender-Focused Research

ADDICTION RESEARCH FOUNDATION
Toronto Canada
March 1994

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EXECUTIVE SUMMARY

The Task Group on Gender-Focused Research was established to raise awareness and interest in gender as a variable in addictions research at the Addiction Research Foundation, and specifically to provide a basis for the development of research and program plans related to gender issues.

The mandate of the Task Group was two-fold: First, to consider needs and opportunities in gender-focused research within the scope of ARF's mandate. This includes, but is not limited to, research on alcohol, tobacco and other drug use and problems in female populations, relevant prevention and treatment strategies, gender issues in research methods and instruments, research on gender roles and interactions in alcohol, tobacco and drug use, and problems and responses to use and problems. Second, to consider, within the frame of general research needs and opportunities, the relative priority of different lines of research for ARF, taking into account the potential utility of the research and ARF's ability to make a high quality contribution.

The Task Group reviewed much of the scientific literature on gender and addictions, requested input from ARF scientists and clinical and program staff, and held discussion groups with key stakeholders across the province. We also reviewed internal workplans for projects with the potential to address gender issues as well as policy documents from institutions and granting agencies.

Much of the history of substance abuse research has focused on males, first because their rates of substance use, problems, and treatment are generally higher than women's, and second, because it has been argued that reproductive factors complicate research. As a result, new approaches to treatment and prevention and commonly used instruments are based largely on studies of males, and drugs used primarily by women have received less attention. The interaction between sex differences in metabolism and in patterns of use and type of drug used and the social interaction between men and women involving substance use have both been neglected.

What research we do have on gender and addictions points to a number of areas for further development. **Patterns of use and heavy use** need to be monitored more consistently, particularly when new substances are introduced. **Gender-focused cross-cultural studies and studies of multiple substance use** are lacking. A number of issues related to reproductive factors have been examined, but there is much disagreement about the **role of different substances in fetal effects, about sex differences in problem-free levels of substance use, and about the effects of paternal substance use on offspring.**

Research on **gender roles and interactions** is limited. Opportunities for research include **observational studies and qualitative research on the role of substance use in courtship and family behaviour, aggression, and employment**, for example.

Directions for prevention research include **sex differences in responses to legislative and regulatory measures, attitudes towards public policy, structural differences in access to substances, advertising strategies, and the development of appropriate venues and strategies for community prevention programs**.

Biological research has also focused on male animals due to endocrine changes in females and the belief that reinforcement mechanisms are similar in males and females. Yet, biological research on human subjects would benefit from greater understanding of **concentration-response curves in males and females for different substances, and sex comparisons in the self-administration of substances and in the response to high doses of substances.**

In treatment research, there are major unresolved issues about **sex differences in treatment response to both pharmacotherapy and psychotherapy**, and in aspects of substance abuse disorders, such as **comorbidity involving substance use and depression or anxiety**. The **prevalence of family violence and sexual abuse among male and female substance abusers seeking treatment** is not well-known, nor is the relationship between **substance use among male and female partners**.

New knowledge required on treatment systems issues related to gender includes **gender differences in barriers to treatment, motives for help-seeking, the role of coercion in identification and referral, and the relative benefits of same sex therapists and patient groups.**

Recommendations for methodology in gender-focused research include **using a variety of research methods, including adequate samples of both sexes and conducting analyses separately for males and females, acknowledging the limited generalizability of single sex research, and ensuring that measurement and interpretation of variables and constructs are appropriate to both sexes**. Aside from pursuing specific gender-related research questions, it is important and timely to **develop a climate of support for gender-focused research and a sensitivity to gender issues.**

ACKNOWLEDGMENTS

Contributions to the work of the Gender-Focused Task Group extend far beyond the working group. The Addiction Research Foundation Women's Committee provided the impetus for establishing the Task Group and important feedback along the way. We are grateful to ARF staff across the province who freely responded in our consultation process, in particular, Kristine Hollenberg, Pamela Brett, Kate Graham and Cindy Smythe, who compiled information collected by Community Programs staff. Key stakeholders in the Ontario health community provided valuable input to these consultations. International Women's Day provided an opportunity to consult with local stakeholders on women's research issues. We thank Pearl Bader, Virginia Carver, Joanne Cohen, Kate Graham, Susan Harrison and Marilyn Pope for facilitating these discussions. Our greatest debt is to Marilyn Pope and Joanne Cohen who provided both administrative and moral support throughout. Finally, the recognition by our Management Committee of the importance of gender as a research issue has been crucial to our progress and will be essential to the implementation of our recommendations.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 3

ACKNOWLEDGMENTS 5

TABLE OF CONTENTS 6

1.0 INTRODUCTION 8
- 1.1 Background 8
- 1.2 Mandate of the Task Group 8
- 1.3 Process 8
- 1.4 The Report 9

2.0 GENDER BIASES IN THE SCOPE AND DESIGN OF EXISTING RESEARCH 10
- 2.1 Research Topics 11
- 2.2 Sampling 11
- 2.3 Design and Methods 12
- 2.4 Measurement 12
- 2.5 Substances Measured 13
- 2.6 Ethics 14

3.0 GENDER ISSUES IN SELECTED AREAS OF RESEARCH 15
- 3.1 Epidemiology: Use and Consequences 15
  - 3.1.1 Patterns of use 15
    - 3.1.1.1 Previous research 15
    - 3.1.1.2 Opportunities for research at ARF 15
  - 3.1.2 Health and social consequences of use 16
    - 3.1.2.1 Previous research 16
    - 3.1.2.2 Opportunities for research at ARF 18
- 3.2 Gender Roles and Interactions 19
  - 3.2.1 Previous research 19
  - 3.2.2 Opportunities for research at ARF 25
- 3.3 Prevention 27
  - 3.3.1 Previous research 27
  - 3.3.2 Opportunities for research at ARF 28
- 3.4 Biological Research 29
  - 3.4.1 Previous research 29
  - 3.4.2 Opportunities for research at ARF 29

3.5 Treatment 30
3.5.1 Treatment modality and effectiveness research 30
3.5.1.1 Previous research 30
3.5.1.2 Opportunities for research at ARF 31
3.5.2 Treatment systems 32
3.5.2.1 Previous research 32
3.5.2.2 Opportunities for research at ARF 34

4.0 RECOMMENDATIONS 35
4.1 Recommendations for Gender-based Research at ARF 35
4.2 Recommendations for Methodology in Gender-based Research 35
4.3 Recommendations for Gender-based Research Policy at ARF 36

5.0 REFERENCES 37

6.0 APPENDICES 44
A. Summary Report of ARF Staff Surveys
B. Report on CPD Women's Issues Provincial Consultations
C. Community Consultation on Research Needs
D. Policies on Gender in Research from External Institutions & Granting Agencies

1.0 INTRODUCTION

No disease can be considered to have a well-understood etiology if it manifests a male or female predominance that is not explained.

GD Friedman, 1980.

1.1 Background

In the fall of 1992, the Addiction Research Foundation proposed that women's issues become a high priority Program Area. This action reflected an increased interest in gender issues at the Foundation and a growing awareness that gender was a neglected variable in research. To support the development of a work plan for the Women's Program Area, the ARF Women's Committee recommended establishing a Task Group on Gender-Focused Research. Other task force reports on women's health or on gender issues were considered too general or not sufficiently geared to the mandate of the Foundation to provide guidance for research.

1.2 Mandate of the Task Group

The mandate of the Task Group was two-fold:

1. To consider needs and opportunities in gender-focused research within the scope of ARF's mandate. This includes, but is not limited to, research on alcohol, tobacco and other drug use and problems in female populations, relevant prevention and treatment strategies, gender issues in research methods and instruments, research on gender roles and interactions in alcohol, tobacco and drug use, and problems and responses to use and problems.

2. To consider, within the frame of general research needs and opportunities, the relative priority of different lines of research for ARF, taking into account the potential utility of the research and ARF's ability to make a high quality contribution.

1.3 Process

In developing its report, the Task Group on Gender-Focused Research has reviewed much of the scientific literature on women and addictions. As part of a consultation

process, ARF scientists and clinical and program staff provided input to the Task Group (Appendix A). In addition, discussion groups were held with key stakeholders across the province (Appendix B, C).

The Task Group also reviewed the current Workplan of the ARF and scanned the internal Project Information Tracking System and the proposed alcohol strategy for Ontario for current and planned research projects with the potential to address gender issues. We also consulted a number of policy documents from institutions and granting agencies for research policy guidelines on gender (Appendix D).

Many of the excellent recommendations from these consultations were not incorporated into our own report, because our mandate did not include programming issues. Nevertheless, they are an important part of the Program Plan on Women (Harrison, 1993).

1.4 The Report

This report focuses on areas of addictions research related to gender that are potential targets for research by the Foundation. By potential, we mean those areas that lie within our mandate and are appropriate for our staff complement and expertise. These areas include gender specific research, gender differences, and interactive aspects of gender.

The distinction between male and female is biologically based, but expressions and understandings of the difference are socioculturally constructed. We use gender here to refer to these culturally-specified definitions and connotations of being male and female.

Our research strength lies in the areas of social and epidemiological research and evaluation, treatment and treatment services research, and some aspects of biological research. In the following pages, we discuss gender issues that should be considered in addictions research, and we present previous and potential research in selected areas in which the Foundation carries on research. We conclude each section with recommendations regarding opportunities for research based on existing resources and new directions for gender-related research at ARF.

In recommending potential areas for research, we have assessed both need and opportunity. We have applied a number of criteria for "need", including gaps in existing research identified by external or internal scans; having been perceived as a gap by practitioners; a high prevalence of the problem; the theoretical importance of the research; and the ethical issues involved. Criteria for "opportunity" include the opportunity to extend existing research; the availability of expertise; having been identified as a priority by government or management, or by researchers, programmers or treatment professionals; and having significant potential impact on the field.

2.0 GENDER BIASES IN THE SCOPE AND DESIGN OF EXISTING RESEARCH

Until recently, addictions research has focused largely on substance use and abuse by males (Brett, Graham & Smythe, 1993). To some extent, this focus has been justified. In general population surveys, men consistently report higher consumption and problems related to the use of alcohol, tobacco and illicit drugs. Men are also more likely to be admitted to treatment programs for alcohol and illicit drug use (Rush & Tyas, 1990). An additional argument for the exclusion of women from some kinds of research has been that reproductive factors make it more complicated to include women in studies where subjects consume alcohol or other drugs.

For all these reasons, it became normative to conduct research using only male subjects. In some cases, major theories in the addictions field have been developed using exclusively male samples. For example, there is a growing literature on sons of alcoholics, but few studies on the predisposition towards alcoholism among females. In addition, drugs used primarily by women, such as psychoactive prescription drugs, have received much less attention (Corrigan, 1985). The result of the focus on males has been that new approaches to treatment and prevention have evolved from a knowledge base derived largely from studies of males. Moreover, a number of commonly used instruments, such as the MAST (Selzer, 1971) and the Addiction Severity Index (McLellan et al., 1980), were developed primarily on the basis of male experience. Finally, gender-specific research on addictions has looked at males and females largely in isolation from each other. There has been little interest in the interaction between men and women and their use of addictive substances in different environments.

In sum, the focus on males in previous research on addictions has exceeded the extent justified by higher prevalence rates and convenience. The lack of female subjects in some areas of research has resulted in inappropriate generalization of research findings to women. In particular, in areas of research where data from an adequate sample of females has not been included or analyzed separately, it is inappropriate to generalize findings to the general population of males and females.

Methodological issues that may relate to gender bias in addictions research are discussed under the following headings: research topics, sampling, design and methods, measurement, choice of addictive substances for study, and ethics.

2.1 Research Topics

Given the male focus of past research in the addictions field, there is a high probability of sex bias in the selection of research topics. Research topics tend to develop out of and be defined by what has gone before. Without special attention to the selection of topics, there is a risk that research on women will be restricted to replication of findings and theories developed for males and studies relating to women's reproductive role.

Some feminist researchers have argued that feminist methods are qualitative and contextual rather than quantitative and controlled (Hughes, 1990). While it is possible that a female orientation may involve more emphasis on qualitative and contextual variables, there is a more basic reason for adopting a more phenomenological approach and broader research questions. Topics in the addictions field originally developed largely out of male-based phenomenology (by male researchers regarding male subjects). Earlier reviews of treatment research by Emrick (1974) and Vannicelli & Nash (1984) found that less than 10% of subjects were female. Female phenomenology, insofar as it differs from that of males in the same culture, has had relatively little influence on the development of research topics. The defining of research topics may be one of the most difficult methodological areas in which to develop gender-sensitive practices. Ensuring that researchers consider the social, economic and political contexts of individuals of both sexes will help promote non-sexist research (Stark-Adamec & Kimball, 1984).

2.2 Sampling

To produce research findings that are generalizable to both sexes, research designs need to include sufficient numbers of males and females to analyze the data separately by sex. However, addictions research still commonly involves only male subjects (Brett et al., 1993) or does not analyze data for both sexes when available (Toneatto, Sobell & Sobell, 1992).

The reporting of findings from studies based on one gender also potentially contributes to inappropriate conclusions from the literature. Although an NIAAA-sponsored workshop had recommended as early as 1978 that studies using all male or all female subjects state this clearly in the title, Brett et al. (1993) found that only 30% of studies involving all males stated this in the title, compared to 72% for studies with all female subjects.

To ensure that findings can be generalized to both sexes, researchers should recruit adequate samples of males and females and conduct analyses for each group separately, as well as for the combined sample. Where such sampling is not possible, the sex of the sample should be indicated in the title, abstract, and concluding sections. NIH in the US has formalized policy on the inclusion of women in study populations (See Appendix D).

2.3 Design and Methods

With much of the descriptive and developmental work in the past carried out with male subjects, and current research focusing on narrow questions in controlled settings, there is a need for descriptive developmental work using female subjects. In particular, longitudinal and natural history studies of females are critical to provide a balanced orientation for controlled research studies.

Until knowledge about females has infiltrated thinking in all research areas, there is a need for variable selection and other aspects of research methodology to specifically consider the female context and how this might differ from the male context (often considered the norm). While females and males are heterogeneous groups, there are some consistent differences in experience. Hughes (1990) suggests some fundamental tenets for women's health research including a recognition of women's power relative to men's, and a commitment to reducing the hierarchic relationship between researcher and subject, to the contextual validity of research, and to the examination of underlying values and assumptions. While these ideas are in no sense mainstream, they do reflect the increasing interest in challenging the traditional research process and methodology.

2.4 Measurement

As described previously, constructs need to be measured either in gender-neutral ways or at least with a clear knowledge of potential gender bias. When standard measures are developed using one population (i.e., males) and then validated for a second population (i.e., females), there is considerable potential for bias. The likelihood of overall bias is increased if the direction of development of many measures in the same field is all or mostly one-way (i.e., males → females, rather than females → males). The reason for this is that the second group misses the preliminary stages of scale development, including literature review and other exploratory research regarding the construct being measured, defining the construct and the domain of items that form part of the construct, and development and refinement of the instrument. Generally, the second group will only be included in the stage of development that involves studies of reliability and validity. Validation, however, is a process whereby the accumulation of evidence is used to determine that the instrument provides an acceptable estimation of the target construct. Even though a measure developed for males may meet minimal standards of validity for females, a measure developed specifically for females might provide a more valid estimate of the construct for females.

Not all measures are vulnerable to different constructions by females and males. For example, alcohol or drug consumption is a concrete, gender-neutral measure. However, in many research contexts, it is not absolute alcohol or drug consumption that is being measured, but consumption as an estimate of risk or problems. In such contexts, gender issues need to be considered in data interpretation and probably in data analysis. Females are more affected than males by the same amount of alcohol due to differences in body composition and metabolism (See discussion by Lex, 1991). There may be other gender differences in consumption studies, such as rate of drinking and concurrent food consumption. Using the same categories to define risk levels based on absolute quantities consumed for males and females is inappropriate. Therefore, gender differences in effects of particular dosages and in drinking style should be recognized in interpreting consumption data.

Most researchers treat gender as a covariate, which is best gotten rid of in the analysis. Separate analysis of data for males and females, separately, can enrich the findings and provide new information that is otherwise lost.

2.5 Substances Measured

Focusing on males has tended to perpetuate the emphasis on substances that men use (Corrigan, 1985). Currently, in North America, men consume more alcohol and illicit drugs than women; women consume more psychoactive prescription drugs than men (Corrigan, 1985; Health and Welfare Canada, 1990). There is almost no literature on the phenomenology and social context of use of psychoactive prescription drugs--reasons for taking them, problem consequences, development of addiction, and so on. While alcohol is more commonly used than most other drugs, and illicit drugs are related to social and legal problems, gender-neutral research would include the development of knowledge on all psychoactive drugs where discretionary use is involved, including prescription drugs.

On a related issue, surveys and other types of research need to address and incorporate in the analyses all substances that a person uses. Alcohol use should not be considered in isolation from other substances consumed. The interaction between sex differences in metabolism and in patterns of use and type of drug used has significant implications for problems. For example, lower levels of alcohol use in women may lower their tolerance for alcohol. When combined with a prescription psychoactive drug, the consequences may be far more severe for a woman than a man.

2.6 Ethics

In a recent publication, Sherwin (1992: 159) raises ethical issues about sex-biased research methodologies, including participation and consent and the social context of research that can perpetuate sex bias. In particular, she states:

> ...feminists ask how research topics are actually chosen: which issues are investigated and which are neglected by medical researchers, whose interests are served by the projects pursued and whose interests are ignored, and who controls research decisions and to whom researchers are accountable.

These issues should inform the research process from the outset.

3.0 GENDER ISSUES IN SELECTED AREAS OF RESEARCH

3.1 Epidemiology : Use and Consequences

3.1.1 Patterns of Use

3.1.1.1 Previous research

Men have traditionally been more likely to use licit and illicit drugs and to use them heavily, except for prescription and over-the-counter drugs. Patterns of use in males and females have tended to become more alike over time as use has diffused within populations. However, males are still more likely to drink and smoke heavily and to use illicit drugs (Fillmore, 1987; Health and Welfare Canada, 1990). They are also more likely to engage in heavy use of multiple substances (Ferrence and Kozlowski, forthcoming). The more difficult a substance is to obtain, the greater the sex difference in prevalence of use and levels of use (Ferrence, 1980).

Sex differences in prevalence of use are minimal among young people and increase at older ages (Ontario Ministry of Health, 1992). Age of initiation occurs earlier among males for most substances, although differences have decreased as age of onset has decreased.

Sex ratios in rates and levels of substance use vary enormously across cultures. In general, the more political and social equality women have in a society, relative to men, the lower the sex ratio for substance use. Ratios also vary according to whether or not the substance is native or foreign, and when it was introduced. The adoption of new substances tends to occur first among males, particularly those who are economically advantaged (Ferrence, 1990). Thus, traditional drugs, such as native beverages or tobacco products, often have high rates of use among women, whereas newly imported products tend to be used first by men.

3.1.1.2 Opportunities for research at ARF

1. **Monitoring trends in use.** The tracking of trends in substance use and the introduction of any new substances is already an important area of research for the Foundation (e.g., Ontario Student Surveys, Ontario Alcohol and Drug Opinion Surveys). With changes in the availability of substances and in public attitudes towards changes, it will be important to continue to monitor trends in substance use. This is particularly the case for adolescents, where new cohorts may exhibit new behaviours.

2. Risk Factors
A number of research questions concern the relationship between risk factors and substance use. For example, what is the role of sexual abuse in the development of substance abuse? What sex differences are there in risk factors for alcohol and drug abuse? What sex differences occur in the context and environment of substance use and abuse? All of these areas have been identified as important potential areas of research by ARF staff and provincial stakeholders (See Appendix A, B).

3. Cross-cultural studies
There is considerable potential for cross-cultural studies in gender differences in substance use. One new initiative involves collaborative work on women's drinking patterns and related problems in several countries (Wilsnack).

4. Multiple-substance use
Research is sparse on gender differences in multiple substance use, the interaction between substances, and the substitution of substances. While sex differences in tobacco use are minimal, except at older ages, men are still far more likely to smoke heavily than women (Health and Welfare Canada, 1992). Since we know that the use of different substances is related, the sex difference in heavy smoking might be related to the higher rates of drinking, and especially heavy drinking, among men.

3.1.2 Health and Social Consequences of Use

3.1.2.1 Previous research

Physical consequences of substance use in males and females are well-documented, although many questions remain. Much effort has focused on reproductive effects, such as fetal effects and gynecological problems, but many of the major chronic diseases also show differential effects of substance use by gender. These include liver cirrhosis, which women appear to experience at lower levels and after shorter periods of alcohol use (Grant, Dufour & Harford, 1988). In many cases, substance use interacts with other risk factors to increase risk disproportionately for women. For example, drinking and possibly smoking are risk factors for osteoporosis (USHHS, 1989, 1990), which is more common among women than men. Alcohol consumption, even at moderate levels, has been implicated in breast cancer, which is common among women and rare among men (Rosenberg, Metzger & Palmer, 1993).

Gender is an important factor in developing recommendations about moderate drinking. A large body of literature shows evidence for a reduction in risk of coronary heart disease among moderate drinkers (Jackson, Scragg & Beaglehole., 1991). Yet, evidence of the relationship is less strong for women, and the overall effect of moderate drinking on health may be quite different for women, largely because of gender differences in health practices which place women at lower risk of coronary heart disease, and biological and other factors which increase women's risk of breast cancer and osteoporosis.

In the context of the present report, the major issue in relation to medical complications is the commonly described sex difference in susceptibility to harmful effects of alcohol. While female alcoholics are at greater risk than male alcoholics of developing cirrhosis of the liver and organic brain damage, many questions remain. Even in relation to the acute intoxication produced by alcohol, for example, it is not yet clear to what extent the greater susceptibility of women is due to the higher blood alcohol levels produced by the same dose of alcohol per unit of body weight in women than in men, to what extent it reflects less acquired tolerance because of lower habitual consumption levels, and to what extent it reflects greater brain sensitivity because of endocrine or other modifying factors.

The picture is even more unclear when one examines differences in organic complications of chronic use. Some types of alcohol-induced cell damage are due to direct pharmacological effects of alcohol, and therefore increase in frequency and severity as the blood alcohol concentration increases (i.e., they are proportional to the maximum level of intoxication attained during a drinking episode). Other types of damage appear to be related to the metabolic consequences of the metabolism of alcohol itself, and are therefore proportional to the total amount of alcohol consumed and metabolized over a period of time, rather than to the maximum concentration attained.

Wilsnack, Wilsnack and Klassen (1984/85) identified sub-populations of women who were at high risk of alcohol problems in North America. These included women who were looking for work, employed part time, divorced, separated, single, or living with a partner, young women, and women with heavy-drinking partners. Follow-up data indicated additional predictors of problems, including low self-esteem, sexual dysfunction, and reproductive problems (USHHS, 1990). These problems may be both antecedents and consequences of heavy drinking.

U.S. studies suggest that women at all ages are at increased risk of experiencing alcohol problems due to role deprivation, rather than role conflict or overload (Wilsnack & Cheloha, 1987). Thus, divorced women with grown-up children are at greater risk than working women who are married and have children in the home.

Studies of sex differences in drinking and driving indicate that women and men who drink and drive are otherwise demographically similar. Those who are young, single, divorced or separated, and unemployed are far more likely to drink and drive, to be arrested, and to be involved in accidents than those who are older, married, and employed (Peek et al., 1987; Shore et al., 1988).

3.1.2.2 Opportunities for research at ARF

1. Policy research
While ARF may not be equipped to conduct major research on health effects of substance use, there are important roles for us in carrying out secondary analysis of health survey data and developing policy guidelines and information materials for government and the public. Examples would include studies of health consequences with known sex differences in prevalence, such as lung cancer, heart disease and osteoporosis, in which exposure to substances is linked to health outcomes.

2. Social problems
Research on gender differences in social and other problems associated with substance use that could be carried out at ARF includes differences in types of problems experienced with substance use, in attitudes towards substance use problems and in patterns of control of significant others with problems.

3. Fetal drug effects
Research on the Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE), including determining safe limits for human consumption; identification and treatment of heavy drinking pregnant women at obstetric units; use of animal models to develop prevention strategies for FAS; possible protective effects of aspirin on FAS; knowledge, epidemiology and clinical description of the paternal fetal alcohol syndrome; and interaction with tobacco and other drugs. Numerous staff and stakeholders identified the prevention of fetal drug effects as a priority area for research and programming (See Appendix A, B).

4. Identification of heavy use
Research needs include the development of gender specific trauma questionnaires for alcohol intoxication and gender specific laboratory markers of alcohol abuse.

5. Mechanisms for alcoholic liver cirrhosis and brain damage
If it is true that women are indeed at greater risk of liver or brain damage, is it simply because the same alcohol intake per unit of body weight produces a higher alcohol concentration as a result of sex differences in body water content, or is it because there are differences in cellular susceptibility to the direct toxic effects of alcohol? There is clearly a need for clinical epidemiology studies to establish clearly whether the risk of organic complications of alcoholism in women is still greater than in male alcoholics, and if alcohol consumption is related to total body water rather than to total body weight. If this correction abolishes the apparent difference, no further investigation is required. If, however, the sex difference persists despite correction for body composition, various specific research questions arise that lend themselves to clinical investigation in the Foundation or elsewhere. To the extent that existing clinical services permit, these and similar topics clearly fall within the areas of interest of the Foundation:

a. Retrospective clinical studies, to examine the correlation between liver or brain disease and drinking pattern, would be worthwhile. Specifically, attempts should be made to correlate estimated peak blood alcohol levels on typical drinking occasions with relative risk of organ damage in males and females.

b. The hypoxia theory of alcoholic liver damage suggests that anemia, by lowering the oxygen-carrying capacity of the blood, should increase the risk of liver damage. Since women of reproductive age tend to have lower hemoglobin levels than men, it would be worthwhile to examine the relationship between hemoglobin level and relative risk of liver damage. The role of cigarette smoking in increasing risk should also be examined.

c. Acetaldehyde, formed by metabolism of alcohol, has been implicated in the pathogenesis of liver damage, and possibly of damage to the brain and other organs. It would therefore be worthwhile to examine the correlation between steady-state blood levels of acetaldehyde, or of antibodies to acetaldehyde-altered blood proteins and relative risk of liver damage, in groups of male and female heavy drinkers.

d. Effects of alcohol on endocrine function, especially gonadal and adrenal hormones, have been studied extensively in other centres. However, there is very little literature on possible effects of these hormones on cellular mechanisms that protect against alcohol-induced damage. At the clinical level, susceptibility to such damage could be correlated with endocrine status in males and in pre- and post-menopausal women.

e. An additional area of interest includes gender differences in protection from alcoholic liver disease conferred by PTU.

3.2 Gender Roles and Interactions

3.2.1 Previous Research

Being male or being female entails a set of expectations about behaviour, internalized by the individual, but also strongly held by others. Much of being male or female is social, in that it involves behaviour in front of an audience of others and in interactions with them. We refer to these expected ways of behaving in social interactions as gender roles.

In gender-focused discussions of alcohol and other drug use and problems, the emphasis has usually been on the individual male or female or on the genders as aggregates of individuals. Thus, there are many discussions of whether heavy drinking among women has increased, whether male and female rates of heavy drinking have converged, whether women have a harder time than men giving up smoking, or whether benzodiazepines are for women the functional equivalent as mood modifiers of alcohol for men. In these analyses, differences in gender roles

and interactional patterns between genders are often brought in as potential explanations of the patterns found, but explicit analysis of the interplay of drinking and drug use with gender roles and interactions is much rarer.

Yet most drinking is a social behaviour, and there are strong social and interactional elements, too, in such behaviours as tobacco and marijuana smoking, cocaine snorting, and heroin injecting. In the social interactions which precede, accompany, and follow alcohol and drug use and problems, gender roles play a prominent part, which has been too little studied. Opportunities for research on gender roles and interactions are discussed below in terms of specific aspects of gender roles.

Courtship and affectional preference

Initiation of alcohol and drug use typically happens in the years when dating and other courtship behaviours are also being initiated. Most teenage drinking and drug use is intertwined with friendship and peer relations in general (see below), but it is also often specifically involved in courtship and dating. Drinking and drug use often serves as an "icebreaker" for cross-gender interactions (Kruse, 1975).

Bars and other public drinking places are major locales of courtship both heterosexual and homosexual (Roebuck and Spray, 1967). On the one hand, shared drinking serves as an icebreaker, while on the other hand, the public nature of the place sets some boundaries around the behaviour and the occasion. The literature on gay and lesbian drinking has speculated that the apparently higher rates of heavy drinking in these groups in part reflect the importance of bars as gathering places for these communities. Particularly in the lesbian community, there is some evidence these traditional patterns have been changed by a wave of sobriety in recent years (Hastings, 1982).

Sexuality

Gender roles are at their most divided in regard to sexuality: stereotypically, women are supposed to guard themselves against sexual expression, while men are supposed always to be seeking it. In the context of the dating complex, female drinking and smoking was associated with being grown up and even cosmopolitan. On the other hand, the status of drinking as a symbol of sexual availability was reinforced, since it threatened the vigilance and moral authority required of the woman by the dating complex. As Leigh's review (1993) makes clear, drunkenness has been widely perceived in the population as worse in a woman than in a man, and one major reason for this is the perceived link between a woman's drunkenness and her loss of sexual restraints.

The expectation that a woman will control both her own behaviour and her date's, even when both are drinking, provides a paradigm in courtship for the expectations of women's controls over their men's drinking in settled relationships. Middle class gender roles in North America in regard to sexuality shifted to the ideology of the companionate relationship and the toleration of sexuality in an engaged couple in the 1910s-1920s, and to an ideology of gender equality and a wider toleration of

sexuality in the 1960s-1970s. Associated with these shifts was a shift in expectations about women's drinking, and about the relation of women's drinking to sexuality (Room, 1991). But these revolutions, occurring in multicultural societies, have not proceeded uniformly by social class and by ethnicity and are not fully internalized even among the middle class.

Marriage and partnership

Married persons are less likely to drink heavily or use illicit drugs than those the same age who are single, cohabiting, or divorced or separated. Those who marry relatively early drink and use illicit drugs much less than those who do not (Osgood et al. (1988). The literature which goes beyond these descriptive findings for males, focuses on the role of a culturally prolonged bachelorhood in high rates of drinking problems (see Stivers, 1976).

The literature on women's drinking suggests that cohabiting women have the highest rates of heavy drinking and drinking problems of any marital status (Wilsnack and Wilsnack, 1991). While many cross-sectional studies have also shown higher rates of heavy and problem drinking among divorced and separated women, the Wilsnacks suggest that divorced or separated status seems to be declining as a risk factor. Their analysis of longitudinal data found that becoming divorced or separated was associated with reduced problem drinking, particularly when the woman had left a frequent-drinking partner or a sexually dysfunctional relationship.

The interrelation of drinking or drug use and gender roles within a marriage or other partnership has received relatively little attention (see Wilsnack & Wilsnack, 1991). Knupfer (1964) found evidence of a norm that a wife should drink less than her husband, to go with other cultural expectations about being younger, shorter, less interested in sex, and so forth; thus only 12% of wives drank more than their husbands. On the other hand, there is some evidence that a couple's drinking patterns tend to converge over time, if only because they are frequently acting as a social unit. A common finding in the literature on women's illicit drug use is that the initiation is by a male partner, who also frequently continues as the supply source (Rosenbaum, 1981).

Parenthood

In general Canadian culture, the idea of drinking with children around is somewhat suspect: only 3% of Ontarians felt that it was OK for "a parent, spending time with small children" to drink "enough to feel the effects", and 53% felt that there should be no drinking at all (Addiction Research Foundation, 1992).

There is little known about the differences children make in their parents' drinking patterns. Cahalan and Room (1974:77) found that, controlling for age, U.S. married men without children were more likely than married men with children to drink heavily but not more likely to experience tangible problems from drinking. On the other hand, Havvio-Mannila's analysis (1991) of a sample of Finnish women,

controlling for being in a couple relationship, found having children at home was strongly negatively associated with hazardous drinking. There seems to have been little analysis of Canadian data on this point for either gender. The injunction to avoid drinking during pregnancy, often taken very seriously, provides a break with previous drinking patterns for women, but not necessarily for men. Given both this and patterns of child caretaking by gender, we may expect the advent of children to have a more dramatic effect on women's drinking than on men's. Koski-Jännes (1991) found that having children in the home was associated with a more positive outcome from alcohol treatment in a Finnish sample, apparently for both genders. Children may also affect their parent's use of tobacco, particularly in light of programs aimed at reducing tobacco use in the home.

Friendship and peer relations

A great deal of drinking and much drug use occurs in the company of friends or acquaintances, yet studies specifically focused on this topic are scarce. The alcohol and drug literature on friendships and peer relations has included respondents' reports of friends' patterns of use, showing a strong correlation with the respondent's own pattern (Kandel, 1980); studies of the spread of illicit drug use through friendship networks (e.g., Plant, 1975); and observational studies in bars and other drinking places, which focus on the relation of the size and composition of the drinking group to the speed and amount of drinking and to instances of "trouble."

An explicit attention to gender roles is found mostly in the observational studies of bars and drinking places, where the focus on male drinking groups has been expanded to include mixed-gender drinking groups. A few studies are explicitly oriented around gender roles--for instance, Spradley and Mann's study (1975) of the gendered interactions between cocktail waitresses and male drinking groups. More often, the studies include many insights on gender roles, companionship and drinking, but these insights have not been drawn together into a coherent picture.

Van de Goor's (1990) study of adolescent drinking in the Netherlands finds that both the rate and amount of drinking is higher in all-boy groups than in the smaller and rarer all-girl groups, while mixed-gender groups fall in between. Boys seemed to feel more pressure than girls to "drink up" to some group norm. For both genders, drinking rates were slower in dyads than in larger groups, which hints that there may be less drinking in a courtship situation than in friendship groups.

In one of the rare studies of all-female drinking, Honkasalo (1989) found that Finnish female factory workers brought their own bottle of spirits to drinking parties, (and the group brought an extra one for the husband of the hostess "as thanks for him staying away"), and the party continued with rounds of toasts until all the alcohol had been consumed. But the centrepiece of the evening was a ritual meal, provided and prepared with exquisite attention to detail by the hostess. The nature of the parties was thus specific both to the gender and to the culture.

Work roles

While there are several studies of drinking or drug use in specific occupations, few of them pay attention to gender roles in the occupation or workplace. Significantly, the few that do are focused on women's work (e.g., Spradley & Mann, 1975).

Wilsnack and Wilsnack (1991) reviewed recent American literature on the relationship between paid employment and heavy drinking among women, but drew no general conclusion. In a review of studies in four societies, Wilsnack and Wilsnack (1991) report that women are more likely to drink heavily or frequently when they are in occupations dominated by men than when they are in occupations dominated by women. Haavio-Mannila (1991) found that men's drinking pattern influenced women's drinking in occupations where men were in the majority, but that the reverse was not the case when women were in the majority.

Informal social control: the spouse, the family member and the friend

Family members and friends exert a primary, often unconscious, influence on our behaviour, which can affect our drinking and drug use. For some kinds of relationships, the predominant influence may be to increase use; in all kinds of relationships, however, influence may be exerted to limit or control drinking and drug use. These informal social controls are far more diverse and widespread than any official efforts to limit harm from drinking or drug use through treatment or punishment.

Heavy drinking and illicit drug use are far more common among men than women. Often, the drinking is at the expense of the rest of the family--whether in terms of the money it takes, the time spent drinking, or how the drinker behaves to family members after drinking. In this sense, it can be said that women's greatest problem with drinking is their men's drinking. Studies of young couples in Finland, Estonia and Russia (Holmila, 1987; 1988) have shown that wives are far more likely than husbands to try to control their spouse's drinking, although the attempt is often not successful.

Studies in the U.S. (Room, 1989; Room, Greenfield and Weisner, 1991) have shown that the predominant direction of efforts to control drinking within the family flows from women to men, and from older generations to younger. While the wife was previously the predominant source of pressures to reduce drinking, in a 1990 survey mothers had overtaken wives as a source of pressure. The predominance of wives over husbands as a source of spousal pressure, however, mostly reflected the higher rates of heavy drinking among males: a heavy-drinking wife was about as likely as a heavy-drinking husband to have been pressured by her spouse.

The role of the "good woman" as the controller of her man's drinking is stereotypical and traditional. In Scandinavia, at least, formal state control systems often put the wife in the position of acting as a control agent on her husband's drinking (Frånberg, 1987; Järvinen, 1991). Finnish male heavy drinkers often define their life history as an oscillation between settling down with a good woman and

"breaking out" to freedom in a drunken binge (Alasuutari, 1986). In the traditional pattern, women have a double burden of control concerning drinking: they are supposed to control not only their own drinking, but also their men's. In the U.S., men are more likely than women to report having pressured a friend to cut down drinking, and among both men and women heavy drinkers are more likely to report this than lighter drinkers or abstainers (Room, 1989).

Domination, violence and abuse

In a study of violent incidents and drinking's role in them, Pernanen (1991) found men and women equally likely to report having been subjected to violence in the last year, but women more likely to have received violent threats that were not acted upon (p. 52). While violence and threats of violence were more commonly reported by younger than older respondents, it was middle-aged women who were "much less likely to be subjected to physical violence when threatened with such" (p. 56). Pernanen interprets this as a reflection of the nature of domestic incidents in long-established marriages or partnerships, where conflict is resolved in ways that preserve the stability of the relationship--or where the memory of past violence may mean that a threat or other signal is enough to exact compliance (Room, 1980). Violence happened to men mostly outside the home, but to women more often at home, from their spouse or lover.

Pernanen's interpretation of violence emphasizes that it has a large intentional element, whether drinking is involved or not, and that it is rooted in social interactions. Gender roles are also reflected in the nature of the violence reported.

In Pernanen's data, drinking is present in over half of the incidents of violence reported, but the drinking modulates rather than overrides the patterns set by gender roles and interactions. For instance, whether drinking was present had a relatively minor effect on the variations in type of violence (p. 154).

In other studies, however, alcohol can be seen to play a more distinctive role in gender interactions and violence. Aramburu and Leigh (1991) found that aggression toward a drunken victim was more acceptable and the victim more blameworthy when the victim was drunk than when sober. These attributions were not much affected by whether the victim was male or female. In a large U.S. general-population sample, Kantor and Straus (1987) found that drinking by the husband alone or by both husband and wife preceded one-quarter of the reported instances of wife abuse; in a multivariate analysis, the husband's general drinking pattern did predict wife abuse, although less strongly than whether the husband felt there were situations in which it was appropriate for a husband to slap his wife.

These studies re-emphasize the importance of considering gender roles and gender interactions in studying violence and domination and the role of alcohol in it (see also Morgan, 1983). Within the family, the issues include not only spousal violence but also violence in other family relationships and sexual abuse of children and others (see Wilsnack and Wilsnack, 1991).

3.2.2 Opportunities for Research at ARF

A variety of study designs and research methods can be drawn on for studying gender roles and interactions in alcohol and drug problems. These include observational studies, qualitative interviewing, probability surveys and content analysis of written materials. While ARF researchers have experience with all these methods, a program of work on gender roles and interactions may require more strength, particularly in ethnographic and observational studies and in multivariate longitudinal analyses.

Both gender roles and drinking and drug use patterns differ greatly among cultures. The challenge in a multicultural society is to map the patterns of variation, which for immigrant groups will not be a simple matter either of transportation of patterns in the old country or of acculturation to some Canadian mean (Room, 1985). Comparative cross-cultural studies, both within Canada and internationally, offer particular opportunities to deepen our understanding of causal and interactional patterns among the factors under study.

1. Courtship and affectional preference
There is rather little research specifically on the role of drinking and drugs in courtship, and on the influence of courtship patterns on drinking and drug use. Possible methods of study include observational studies in public drinking places and qualitative interviews about the role of drinking and drugs in dating and other courting rituals. A limited amount of information could also be gained from survey interviews. It is also relevant to study advertising and media representations of alcohol and drugs in courtship, since media representations both influence and reflect patterns of courtship. There are large cultural variations in courtship patterns, and these also need to be taken into account in study designs. Since courtship often coincides with the life-period and contexts of maximum alcohol and drug use, developing knowledge of patterns of alcohol and drug use in courtship and how those patterns might be influenced is a promising direction for ARF research. A first step might be some qualitative interviewing, leading to addition of material on this area to ongoing surveys of college and high school students.

2. Sexuality
Impelled by the threat of AIDS, there has been considerable research in the last few years on the role of drinking and drugs in sexuality, particularly in the U.S. and Scotland. This has included both quantitative and qualitative studies of populations at especially high risk of AIDS, as well as general-population epidemiological studies and some social psychological experimental work. It is well-established that the populations engaging in risky sexuality and in risky drinking and drug use substantially overlap. But to reduce harm, it is more important to understand what are the contexts and circumstances in which drinking and drug use interact with sexuality and risky sexuality -- topics about which much less is known. Qualitative

interviewing of teenagers and adults on perceptions and behaviours on these topics might be promising. Given the role culturally assigned to women in controlling sexuality, female samples would be a first priority. Since this is not an area of current ARF research strength, undertaking substantial work in the area might require recruitment.

More generally, it would be useful to study differential expectations by gender among adults and teenagers about the effects of drinking on behaviours such as aggression and sexual activity. Comparisons across social class and ethnic groups should also be included.

3. Marriage and partnership

The existence of differences in drinking and drug use and problems by marital status is not in dispute, but we need to know how to interpret the differences and assess the implications for prevention and treatment. This suggests three approaches: qualitative interviewing about the interplay of drinking and drug use with coupling, partnership, and uncoupling; interviews with both partners in probability samples of couples; and longitudinal studies of the correlates and changes involved in life transitions (such as getting married). The latter two involve expensive fieldwork and would require additional funds. In the meantime, ARF scientists should seek opportunities to add appropriate questions to ongoing and planned epidemiological and other studies.

In general, there should be a stronger focus on the process of relationships in studying the interaction of drinking and drug use and marital status--both on processes of coupling and uncoupling, and on processes of interaction and mutual influence within the relationship.

4. Parenthood

Reanalysis of existing epidemiological data sets offers a relatively low-cost option for establishing basic epidemiological information about the relation of drinking and drug use to parenthood statuses, with attention to variations in population subgroups. To develop understanding of causal patterns, longitudinal data will be required. Such longitudinal studies might focus on drinking and drug use in life-stages, and thus cover marriage and partnership as well as parenthood.

5. Friendship and peer relations

Attention to drinking and drug use in friendship and peer relations has been scanty in Canada, particularly for women's friendship networks and relations. First steps would probably be observational studies and qualitative interviewing. This research could be combined with other aspects of gender roles and interactions.

6. Work roles

ARF studies of the interplay of drinking and drug use with the workplace and work roles should include attention to issues of gender roles and interaction. Wilsnack and Wilsnack (1991) suggest that "studies that evaluate possible explanations for the

influence of nontraditional work on women's drinking would be valuable (e.g., the possibility that women engage in collegial, companionate drinking with male colleagues...). Also worth exploring ... is the hypothesis that women in nontraditional occupations drink more, in part, as a symbolic expression of power and gender equality."

7. Informal social control
This line of investigation offers the possibility of strengthening social control efforts in the family and in friendship networks as a strategy for preventing alcohol- and drug-related problems. ARF's 1993 Ontario Alcohol and Drug Opinion Survey will offer some information on gender patterns in efforts to control drinking and smoking within the family and among friends. Further development of this line of work requires more qualitative approaches. Given its preventive potential, work in this area should have a relatively high priority.

8. Domination, violence and abuse
ARF's LINK project has contributed to programming and networking in Canada on the issues of gender, drinking and drugs, and family violence and abuse. Further research development in this area should focus more on understanding the conditions and patterning of family violence and abuse than on establishing prevalence rates. This is probably best pursued through qualitative interview studies, starting with relatively youthful populations (college age and in their 20s). A watch should be kept for opportunities to add questions on violence and abuse to studies on other aspects of gender roles and interactions.

3.3 Prevention

Prevention research is a relatively new area of study, with much of the work coming from psychology, education, and economics. Current research includes responses to changes in taxation and pricing policies, educational efforts, community and worksite interventions, media campaigns and policy attitudes.

3.3.1 Previous Research

A few studies have looked at sex differences in price sensitivity (Townsend, 1987; Borren & Sutton, 1992) and attitudes towards public policy (Giesbrecht and Farinon, 1991). While some studies suggest that women are more price sensitive than men, apparently due to lower disposable income, others find negligible differences, which may relate to the difficulty in measuring women's true disposable income. Women are more conservative in their attitudes towards public health policy in general and smoking and drinking regulations in particular, generally favouring more restrictive policies than men. This may be explained by their lower rates of use of most substances, and hence, less vested interest in more liberal policies, and in their experience of greater adverse effects of men's use of substances, particularly alcohol (Room, 1980). Women's traditional role as family caregiver may also play a part.

There are structural differences in male and female access to substances. For example, tobacco is more often banned in white collar than blue collar settings, which means that more women are affected. This may mean that they smoke less, or that they are more likely to smoke in public places. With alcohol, men have more access to alcohol on the job, particularly as sales people and bartenders.

Underage use of substances may relate to sex differences in social contacts (Bowker, 1977). While young males begin substance use slightly earlier than young females, the difference may be decreased if young women have access to older boyfriends who obtain substances for them.

Substance use by gays and lesbians has received some attention (Israelstam and Lambert, 1986), particularly among those groups who are heavy users of substances. Differential substance use patterns may have significant implications for health, for example, the finding of higher rates of breast cancer in lesbian women may be related to higher levels of alcohol consumption.

In media advertising, women have been targeted separately for many years. Advertisements in the 1920s and 1930s showed women using tobacco as a stress reliever and weight control agent (Atwan, McQuade & Wright, 1979). Alcohol advertising often portrays sexual encounters in which drinking is associated with success. Alcohol and tobacco sponsorship is aimed primarily at males in sports and cultural settings (e.g., auto races, jazz festivals) where men outnumber women.

Those who develop community programs aimed at general populations often don't ensure that they are appropriate for women. Typical targets are male dominated activities, such as drinking and driving and drinking in licensed premises. Drinking and smoking in the home have been largely ignored to date. Few anti-smoking programs for women have been developed or evaluated, and there are not extensive data on how women differ from men in reasons for smoking and quitting. Women are more successful than men in controlling their weight while smoking (USHHS, 1988), and are more concerned with weight gain associated with cessation.

3.3.2 Opportunities for Research at ARF

There is already some research ongoing at ARF on gender issues in prevention. Further work could focus on the following areas:

1. Contextual and environmental factors
Research should be carried out on the effects of incorporating sex differences in contextual and environmental factors in prevention programs, and on sex differences in preventive roles, both formal and informal. This could include the effect of sex differences in drinking and drug use contexts on the incidence of heavy

use and harm. The role of women and children as change agents for lowering alcohol use and quitting smoking should be investigated.

2. Legislative and regulatory responses
Other efforts could involve more on gender differences in responses to legislative and regulatory measures. This includes response to price changes, access to illicit substances, and willingness to obtain contraband goods.

3. Program components
More attention should be paid to the use of female role models and gender sensitive materials in prevention programs, and efforts to determine gender differences in the most effective venues for carrying out interventions, for example, workplaces, homes and shopping centres.

3.4 Biological Research

3.4.1 Previous Research

Basic biological research has tended to focus on studies of alcohol and other potentially addictive drugs exclusively on male animals for two main reasons. First, the variability due to endocrine changes associated with the estrus cycle in females makes interpretation of results more difficult. Second, neurobiologists studying the reinforcement mechanisms in the brain, that are generally considered to be the biological substratum of drug-taking and dependence, have regarded the elucidation of these mechanisms as difficult enough, without complicating it by looking for sex differences. The working hypothesis underlying this research is that drugs activate processes which are common to other reinforcers, such as food and water, which operate in both males and females. The mechanisms are assumed to be so fundamental to life that they are common across species and across sexes. While this does not mean that sex differences might not influence drug-taking behaviour, even among laboratory rats, at this stage of knowledge, researchers generally assume that there is more to be gained from detailed knowledge of reinforcement systems without regard to sex. While these reasons may have been valid in the past, they can no longer be regarded as compelling.

3.4.2 Opportunities for Research at ARF

There are several areas in which ARF basic biological researchers could make a significant contribution to the understanding of the role of gender in alcohol and other drug problems.

1. Concentration-response curves
The comparison of concentration-response curves in male and female subjects, for alcohol, benzodiazepines, barbiturates, cocaine, opiates, and other drugs is an important area for investigation. This would resolve the debate about whether

differences between the responses of males and females are due primarily to differences in drug distribution in the body or to differences in sensitivity of the nervous system. Should the latter prove to be the case, there would be good reason to examine sex differences in cellular mechanisms of action of the various drugs in the brain.

2. Drug self-administration
The systematic comparison of males and females in studies of drug self-administration and of indirect measures of reinforcement such as alcohol- or drug-induced place or taste conditioning should be carried out. Females consistently take smaller amounts of alcohol or other drugs than males do, even when the amounts are corrected for body mass or water content. Since a variety of endocrine factors have now been shown to affect reinforcement, it is possible that gonadal hormones do, and the proposed work would be a simple and direct way of seeing whether this is an important issue.

3. Role of endocrine system
The systematic comparison of male and female responses to high doses of alcohol in paradigms that have already been found to generate organic damage to liver, brain and other organs is also an area for further work. Such an approach would deliberately exploit the endocrine variability in the female, to examine the role of gonadal hormones in the pathogenetic mechanisms. Since there are well-known differences between males and females with respect to their relative susceptibility to some forms of organ damage this could be a fruitful line of investigation.

About 10% of the Caucasian population lack the enzyme responsible for metabolizing drugs such as codeine and amphetamine derivatives. Current research focuses on the relationship between this deficit and differences in abuse liability and toxicity. Both male and female subjects are used, but there is no underlying hypothesis that sex differences are important. While preclinical research on the development of medications to treat addictive disorders has largely been restricted to studies of male animals, preclinical data based on studies that include both sexes are necessary before testing in human subjects can proceed.

3.5 Treatment

3.5.1 Treatment Modality and Effectiveness Research

3.5.1.1 Previous research

Several reviews of addiction treatment outcome studies have pointed out that only a small minority of the studies published in the 1960s, 70s and 80s evaluated gender differences in treatment outcome (Annis & Liban, 1980; Vannicelli & Nash, 1984; Toneatto, Sobell & Sobell, 1992). Taken as a whole, these studies provide no evidence for sex differences in addiction treatment outcome. However, there is a

growing recognition that gender is an important variable to consider in the design of new treatments and treatment delivery systems, and that more attention to gender issues in sociobehavioural treatment studies could lead to improved treatment outcome.

Promising avenues for gender-focused treatment research are emerging. Cognitive-behavioural treatments for substance abusers typically involve an assessment of a client's patterns of use of problem substances, antecedents or situational triggers to use (including internal cognitive and affective states as well as external events), and consequences of use. There is now a substantial body of evidence showing that there are modal differences in the antecedents, patterns, and consequences of substance abuse in women clients compared with those for men (Blume, 1992; Lex, 1991; Schmidt, Klee & Ames, 1990; Wilsnack & Wilsnack, 1991). Treatment needs to incorporate this knowledge in the design of programming.

The interaction of pharmacotherapies with cognitive-behavioural treatments is also emerging as a promising line of research (Annis, 1991). Little is yet known about gender differences in the combination of medication with counselling treatments.

3.5.1.2 Opportunities for research at ARF

1. Cognitive-behavioural assessment and treatment
Given what is known about gender differences in antecedents, patterns and consequences of substance use, there is a need for the field to develop clinical assessment, treatment planning and monitoring tools that are gender appropriate. There is also a need for the development and evaluation of cognitive-behavioural treatment programs that incorporate existing knowledge about women's patterns, antecedents and consequences of use.

2. Violence, sexual abuse and psychopathology
Among the familial and social factors that have been found to be associated with substance abuse in women, family violence, incest, sexual assault, and drug abuse in the nuclear family and by the spouse are common (Wilsnack & Wilsnack, 1991). Suicide attempts and concurrent affective disorders, particular anxiety and depression, have also been reported to be more prevalent in women (Helzer & Pryzbeck, 1988; Hesselbrock, Meyer & Keener, 1985), although little is yet known about the functional relationship between the development of substance abuse and other psychiatric disorders and symptoms. Opportunities exist for ARF to make a contribution in this area by: 1) exploring the prevalence of family violence and sexual abuse among male and female substance abusers seeking treatment (e.g., ODATOS data base); 2) studying the direction of the association between women's substance use and her partner's substance use and its relationship to conflict and violence; 3) examining the gender-specific prevalence of psychiatric disorders in relation to substance abuse (e.g., Ontario Health Survey); 4) establishing the relationship between severity of psychopathology in general, and specific diagnoses in particular, and addiction treatment outcome in women substance abusers; and

5) studying the functional relationship between substance use and anxiety and depressive disorders in terms of the influence one has on the development of the other.

3. Injection drug users and unsafe sex
Female injection drug users and female partners of male injection drug users have recently been reported to engage in extremely high rates of unprotected sex (Metzger, Woody, Druley et al., 1990; NIDA National AIDS Demonstration Research Project). Opportunities exist within the CRTI treatment delivery system for exploring intervention alternatives for male and female clients at risk for alcohol-and-drug-related unsafe sex.

4. Pregnant women on Methadone
Pregnant women on methadone have lower rates of prematurity and lower infant birth weight and infant mortality than heroin users not on methadone (Finnegan, 1977). Risks associated with methadone on neonatal withdrawal and fetal growth are well documented and the need for careful monitoring of dosage and dosage regulation is widely acknowledged (Finnegan, 1991). It is recommended that the CRTI methadone program contribute to this knowledge base by exploring issues related to the management of pregnant women on methadone.

5. Pharmacotherapy
Given that sex differences in body weight and composition, for example, are known to affect blood alcohol content, there is a need to develop gender-sensitive human models for testing new pharmacotherapeutic strategies. There is also a need to study gender differences in the relative contribution of pharmacologic and nonpharmacologic factors in patterns of response to medications.

Advancement of knowledge in each of the above areas has implications for the design of more effective treatment strategies.

3.5.2 Treatment Systems

3.5.2.1 Previous research

Gender-related differences may occur in two conceptual areas: accessing treatment and treatment response, including retention in treatment. Previous research suggests that women with alcohol and drug problems are more reluctant to enter specialized treatment services, but more likely to use general health care services. Differences may be related to approaches to treatment or to non-treatment variables, such as lack of transportation or child care services or to women's own assessment of the problems in their lives.

For this discussion, the term treatment systems is used to refer to the process by which people receive help with substance-related problems. The first stage of the process is case identification. There is some indication that women are more likely

to be identified through informal networks and through health and social services agencies, whereas men are more likely to enter treatment through employers or legal services (Beckman and Kocel, 1982). Little is known about the dynamics of each context that may lead to appropriate identification and facilitation of entry into treatment. Some research has found that major entry points for women, such as physicians, are unwilling to address substance use in women (See reviews by Beckman and Amaro, 1984; Wilsnack and Wilsnack, 1990), and that families and spouses are less supportive of women entering treatment than of men (Beckman, 1984). Although women substance abusers tend to be underrepresented in the addiction-specific treatment delivery system, women have been found to be overrepresented in mental health and primary health clinics (Weisner & Schmidt, 1992). Perhaps because of the social stigma attached to drinking by women (Beckman & Amaro, 1986), Thom (1986) suggests that female problem drinkers may be more likely to interpret their problem as one of anxiety or depression, whereas male problems drinkers are more likely to describe their problem as explicitly alcohol-related. Finally, insofar as potential referral sources look only at traditional drugs of abuse, such as alcohol and illicit drugs, they may overlook women experiencing problems related to the use of prescription drugs, alone or in combination with alcohol.

Characteristics of a treatment delivery system can affect recruitment and retention rates, client satisfaction, and outcome. To the extent that addictions treatment systems have been structured to meet the needs of males rather than females, assessment and treatment planning can be particularly crucial to the process of engaging women in treatment. Some treatment approaches have been found to be particularly suitable for women (Sanchez-Craig et al, 1989; Sanchez-Craig et al, 1991), and women's only treatment programs may attract women substance abusers who would not otherwise seek treatment (Copeland & Hall, 1992). However little is known about factors influencing treatment receptivity and the role of mixed (male/female) programs and women specific programs. One argument for women's treatment programs is that these programs are more acceptable to women, and therefore, penetrate the population in need better than mixed sex programs (Duckert, 1987). There is some evidence to suggest that women are more likely than men to desire non-residential rather than residential treatment (Beckman and Kocel, 1982).

Finally, the issue of broadening the base of treatment is particularly relevant to gender-focused research. Given the likelihood that women will seek help outside the addiction-specific treatment system (Weisner & Schmidt, 1992), the training and use of general health and social service providers in brief interventions with substance abusers may be particularly relevant for women. Recent research has identified the role of sexual abuse as an antecedent of problem drinking (Wilsnack and Klassen, 1992). The relationships between substance abuse and both sexual abuse and violence support the need for involvement of non-addictions services in recognizing and responding to substance abuse problems of women. Broadening the base may be important in making treatment accessible to subgroups of women,

including ethnic and language minorities, lesbians, older and younger women, disabled women, and others.

Treatment systems research also includes the areas of aftercare and case management. Several authors (e.g., Beckman, 1984; Duckert, 1987) have discussed aspects of women's lives (e.g., low income, the need for childcare) that may produce barriers to entering and continuing treatment. These issues are likely to relate to treatment systems research across the full recovery process, including aftercare needs and relapse prevention supports.

3.5.2.2 Opportunities for research at ARF

1. Factors in help-seeking behaviour
ARF is in a good position to advance knowledge on help-seeking behaviour by exploring factors involved in gender differences in (a) barriers to treatment (e.g., differential needs for child care, transportation, financial assistance as well as different roles family and others play in facilitating or preventing the substance abuser receiving help; (b) factors that motivate help-seeking behaviour (e.g., threat of job loss, loss of children, family pressure); (c) types of ancillary services needed (e.g., debt counselling, family counselling); and (d) receptivity to different treatment alternatives (e.g., residential and non-residential treatments; self-help, individual and group treatment alternatives; general physician delivered versus specialized addiction services); and (e) factors related to relapse and dropping out of treatment.

2. Role of coercion
Little is known about the role of coercion (including the courts) in the appropriate identification and referral of clients to treatment. This area warrants study, with a particular focus on ethical approaches to pregnant women who are abusing alcohol and drugs.

3. Community interventions
There is a need for gender-sensitive identification and facilitation of entry into treatment of persons abusing alcohol and other drugs. Since psychoactive prescription drugs have tended to be overlooked, particular attention need to be focused on this area. Community interventions, aimed at both public and professional groups, need to be evaluated in terms of their effectiveness in generating gender-sensitive identification and referral.

4. Specialized women programs
Broadening the base of treatment may be important in attracting and retaining different subgroups of women in treatment. For example, International Women's Day consultations (See Appendix C) identified the need for more options for rural women and women from different ethnic groups. In this regard, there is a need to study the role of all women's programs, women self-help groups, and aftercare supports for women within the broad context of treatment systems.

4.0 RECOMMENDATIONS

4.1 Recommendations for Gender-based Research at ARF

In this report, we have outlined many opportunities for gender-based research that fit with the current resources and capabilities of the Foundation. These are listed in the text following the sections on previous research. We have also provided a summary of these opportunities in the Executive Summary. A separate list of recommended areas of research was felt to be inappropriate, because these topics are closely linked to the sections on previous research. In this section, we include recommendations for methodology that should inform the design of gender-based research, and recommendations for gender-based research policy at ARF.

4.2 Recommendations for Methodology in Gender-based Research

Based on our discussions of gender bias in the research process, we have developed the following recommendations for methodology:

1. Use a variety of research methods, including broad, contextual and cooperative research approaches.

2. Where possible, include adequate samples of both females and males in research and conduct separate analyses by sex in order to explore possible sex differences in findings.

3. In areas where one gender (often but not always women) has been excluded in previous research, conduct some studies that focus on the neglected gender or oversample the neglected gender.

4. Where studies include only one gender or mostly one gender, this should be clearly stated in the title and abstract and the limitations of generalizability to the non-studied gender should be explicitly acknowledged in the discussion and conclusions.

5. The selection of research topics should include an examination of implicit values, including whose perspective is reflected by the research, who are the likely beneficiaries of the research, and what is the potential for misuse of the findings.

6. The measurement and interpretation of variables and constructs should be appropriate to both genders if results are intended to be generalizable to both genders.

7. Research on predictors, use patterns, consequences, and treatment of substance use should include all substances used, including concurrent use of more than one substance.

4.3 Recommendations for Gender-based Research Policy at ARF

The Working Group has developed an number of general recommendations for gender-focused research at the Foundation. However, changes in internal policy and the climate of research are important prerequisites to these research initiatives.

1. The Foundation should provide a climate in which gender-focused research is encouraged and funded.

2. The issue of gender should be dealt with in all research proposals for internal funding. Wherever possible, researchers should include subjects of both sexes and analyze data separately by sex. When this is not feasible, investigators should offer explanation. The same criteria should be encouraged for externally funded research.

3. The format of the ARF Workplan and project information reporting forms should be structured so that information on gender is collected and retrievable. This is an essential part of the requirement described in recommendation 2 above. This will also allow for periodic assessments of the extent and range of gender-focused research.

4. The current climate of fiscal restraint should not hinder gender-focused research. Where primary data collection is not possible, existing data bases can be used for analysis where appropriate.

5. Since past research has focused largely on males, much important qualitative and descriptive information needs to be developed for women. We should support such research, particularly with regard to the social context of substance use and social interaction issues.

6. The issue of support for female researchers and research staff is not strictly within our mandate, but is closely linked with support for gender research, generally. We expect that the Employment Equity Task Group will deal with this issue, but we flag it here for special attention.

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6.0 APPENDICES

A. Summary Report of ARF Staff Surveys

B. Report on CPD Women's Issues Provincial Consultations

C. Community Consultation on Research Needs

D. Policies on Gender in Research from External Institutions & Granting Agencies

APPENDIX A

Summary Report of ARF Staff Surveys

GENDER-FOCUSED RESEARCH NEEDS AND OPPORTUNITIES
A Summary Report of ARF Staff Surveys

For the Task Group on Gender Focused Research
Spring, 1993.

In order to assist the Task Group on Gender-Focused Research in its appraisal of the needs and opportunities for gender-focused research at ARF, members of the Task Group canvassed colleagues for their opinions about key research questions related to gender, what involvement ARF should have in the area, and what opportunities exist to use current research projects or data bases to answer gender related research questions.

Responses from staff in CRTI, CPD, PASER and PHPRD are included in this summary report. Comments from staff in Primary Mechanisms have been incorporated into the body of the Task Group Report. Most points were made by more than one respondent; overlapping responses have been combined in theme areas.

POTENTIAL RESEARCH AREAS:

Treatment Receptivity:
There is some evidence that specific treatment approaches may attract more women into treatment, lead to better treatment retention and greater treatment satisfaction, and better treatment outcome. ARF is in a good position to contribute to this area of factors involved in gender-specific receptivity of treatment.

Brief Interventions:
Staff identified a need to look at factors which make some treatment approaches, such as brief intervention, particularly suitable for women.

Barriers to Women Accessing Treatment:
A number of treatment accessibility issues have been raised in the literature that may affect the entry of women into treatment programs. Some of these relate to treatment system delivery issues that may be resolved through work with other health and social service providers. For example, several staff identified daycare issues as being important in the provision of women's services.

Women and Non-Addiction-Specific Services:
Although women clients are underrepresented in alcohol and drug treatment agencies, women clients are overrepresented in mental health and primary health clinics. The implications of this finding for offering quality addiction treatment services to women need to be further explored.

Separate Programs for Women:
There is some evidence that all-women treatment programs may attract a different type of woman substance abuser, thereby reaching an underserved population. On the other hand, greater sensitivity to issues affecting women within existing male-dominated treatment programs may make generic services more acceptable and responsive to the needs of female clients.
Staff identified the need to review issues of group dynamics, safety and disclosure in single-sex and mixed-group settings.

Physical Abuse, Incest and Sexual Assault:
These are all reported more frequently by female than by male substance abusers. Little is known about how physical and sexual assault issues should be addressed in addiction treatment, when they should be addressed, and whether referral of clients with unresolved issues to non-addiction-specific services is the best option.

Eating Disorders:
Staff identified a need to study the relationships of eating disorders, sexual abuse, and alcohol and drug use.

Relationship of Co-morbidity to Treatment Response:
There has been considerable research on the relationship of psychopathology to treatment response in men, but almost no research in women. Studies on the relationship of severity of psychopathology in general and specific diagnoses in particular, to treatment outcome in women substance abusers may lead to more effective treatment intervention.

Functional Relationship between Substance Use and Psychiatric Disorders:
Certain psychiatric disorders, such as anxiety and depression, are more prevalent in women. ARF can make an important contribution to the understanding of the functional relationship between substance use and these disorders and how one is influenced by the other.

Benzodiazepine Use:
The greater use of benzodiazepines by females compared with males is well documented. ARF is well positioned to conduct community surveys and to investigate factors involved in discontinuation and abuse liability.

Gender Differences on Clinical Assessment Instruments.
ARF has developed a variety of assessment tools including instruments to assess alcohol and drug dependence (ADS; DAST), the patterning of alcohol and drug consumption (Timeline), situational factors associated with drinking/drug use (IDS; IDTS), a clinical withdrawal scale (CIWA-Ar), and a variety of measures of client expectancies (SCQ; DTCQ; OES). Gender differences in responses to some of these clinical assessment and treatment planning and monitoring tools have not been explored adequately. The sex bias of the items on some measures should also be reviewed.

Effectiveness of Women Self-Help Groups and other Women Group Aftercare Supports:
Little is known about the effectiveness of various types of all-women groups as long term supports for maintaining treatment gains. This is another area where ARF is well positioned to make a contribution.

Pregnancy and Methadone Treatment:
Pregnant women on methadone have lower rates of prematurity and lower infant birth weight and infant mortality than heroin users not on methadone. However, there are risks associated with the use of methadone during pregnancy. Methadone can induce neonatal withdrawal and affect fetal growth. Some evidence suggests the use of a split dose procedure may minimize some of the negative effects of methadone on the fetus. This, and other issues, in adjustment of methadone during pregnancy warrant further study. It would be useful also to study the impact of easy access to healthcare under the Canadian healthcare system on pregnancy outcome and infant health in this high risk group.

Issues Related to Alcohol/Drug Use and Pregnancy:
Staff identified numerous issues related to alcohol use during pregnancy, including the need to study prevalence of FAS and FAE, and the development of public education strategies, and FAS & FAE prevention programming for adolescents of both sexes. Programming aimed at the prevention of fetal drug effects including the harmful effects of smoking were also flagged by staff.

Children of Alcohol/Drug Using Parents:
We need to know more about factors affecting the development of alcohol/drug problems in the children of alcoholic or drug-using parents.

HIV + Women and Transmission:
Women may face barriers (cultural, social, economic) around practicing safer sex and safer injection practices. Transmission issues for women need to be further investigated.

Life Span and Cultural Issues:
Staff identified a need to study gender differences in individual drinking behaviour over the life course and in cross-cultural variations in drinking patterns.

Self Efficacy:
The role of control or sense of influence over one's health is central in Health Promotion theory. There is a need to examine gender differences in the role of self-efficacy in relation to substance use and abuse.

Health Status, Health Beliefs and Attitudes:
Staff identified a need to study differences in drug use related to differences in health status, health beliefs and attitudes.

Etiology of Drug Use:
Staff identified the need to look at sex differences in the etiology/causes of alcohol and drug use.

Risk Factors:
Risk factors and protective factors for alcohol and drug problems may differ for men and women. Staff identified a need for more research in this area.

Reasons for Use:
Staff identified a need to explore possible differences in reasons for using alcohol and drugs, including tobacco between men and women.

Socialization Issues:
Staff identified the study of sex differences in socialization and alcohol and drug use and problems as a potential research area.

Community Interventions:
Staff questioned whether large community interventions adequately addressed women's needs.

Groups with Special Needs:
Several staff acknowledged that women were not a homogeneous group, and that special issues existed for a number of subgroups, for example, young women, lesbian women (and homosexual men), native women, francophone women, single mothers, immigrant women, and elderly women.

DEVELOPMENT AND TRAINING ISSUES:

Many staff identified needs and opportunities in the areas of training and development, in the course of responding to questions about gender-focused research. Topics flagged for training and development include the following:

- Educational materials on safe levels of alcohol use by women.
- Education of staff on issues of sexual, emotional and physical abuse, and eating disorders.
- Materials for pregnant women with alcohol and/or drug problems.
- Educational materials for women about HIV and AIDS .
- Materials addressing issues of importance to men including issues of impotence, violence and anger, criticism and how these impact on relationships.
- Training of health care professionals in women's issues.
- Training events on women's issues held in partnership with community stakeholders.

ARF RESEARCH OPPORTUNITIES:

Several staff identified opportunities to reanalyse existing ARF data bases by gender to yield useful information. Most studies have adequate samples of males and females to examine gender effects or to analyze data separately for each gender. A number of studies were identified where gender analyses were not planned but could easily be done. In addition, new approaches regarding existing research were identified that could address specific gender issues e.g., needs assessment or forecasting models for women separately from men.

It was suggested that every Principal Investigator consider the extent to which gender issues could be addressed in projects. This does not mean that gender must be included in all projects but that exclusion of gender issues or exclusion of one gender should be an active rather than a passive process.

Examples of Research Opportunities:

Prevalence of Family Violence and Sexual Abuse: The existence of the ODATOS data base presents an opportunity for ARF to explore the prevalence of family violence and sexual abuse in the background of male and female substance abusers seeking treatment.

Comorbidity Epidemiology: The Ontario Health Survey provides opportunities for exploring gender differences in the prevalence of psychiatric disorders in relation to substance use.

ARF POLICY ISSUES:

Two respondents suggested the need for affirmative action policies such as those developed by NIH in order to encourage staff to examine gender issues routinely in their work.

Respondents suggested that ARF foster gender-focused research by funding specific projects that address gender issues. Staff also suggested the development of a core of staff with a specialty in the area of gender issues so that project teams could tap into expertise in this area..

One respondent commented that "the greatest opportunity lies in integrating gender issues into our ongoing and future work."

APPENDIX B

Report on CPD Women's Issues: Provincial Consultations

Report On Provincial CPD Consultations on Women's Issues

Background Information

During the period of late February 1993 and early March 1993, CPD staff (See Table 2 for names and locations) carried out an extensive consultation process across the province, conducting a total of twenty-four discussion groups on women and addiction issues to help shape the Foundation's program plan for women's issues. The process began in early February when CPD staff received a "ready made" resource package, including separate sets of treatment and prevention questions, as well as, guidelines for conducting the discussion groups. The CPD staff facilitating the groups were given the option of gathering input on either treatment or prevention questions or using both sets in discussion groups with key stakeholders in their communities. Overall, there was an tremendous response to the discussion groups, as indicated by the high level of cooperation and enthusiasm from both CPD staff conducting the groups and the vast number of participants that attended the groups or responded in writing. Table 1 provides an overview of the number and types of discussion groups that took place across the province;

Table 1: CPD Provincial Consultations on Women's Issues

Total Number of Individual Discussion Groups-	*24*
Number of Discussion Groups Asking- Treatment Questions	*15*
Number of Discussion Groups Asking- Prevention Questions	*10*
Number of Community Consultations- French Language	*3*

Given the short turn around time to organize the discussion groups, CPD consultants were able to obtain an overwhelming response from approximately 207 key stakeholders from across the province. Of the total number of participants, 36%(75 individuals) responded to the prevention questions, while 64%(141 individuals) responded to the treatment questions. The discussion group participants represented the following broad range of interest groups: consumer groups/self help (Women for Sobriety, CMHA, etc); child and family services; native organization; correctional services; addiction specific agencies; hospitals; shelter servicer; AWARE in Kingston; sexual assault centres; YWCA; Concerns Canada; EAP's; employment services; women immigrant services; education providers; women's health centres; recovery homes; crisis centres; lung associations; mental health services; police; public health; district health councils; multicultural health coalitions; student health services; parent support groups; and most importantly, independent women in recovery. Table 2 on the following page illustrates the number of discussion groups held across Ontario according to location, the ARF Facilitator, number of participants, and type of group held.

Table 2: Range of CPD Discussion Group Participants Across the Province

LOCATION OF DISCUSSION GROUP (CODE FOR LOCATIONS)	NUMBER OF PARTICIPANTS	TYPE OF QUESTIONS RESPONDED TO
Ottawa(O)- Helen Youngson - Virginia Carver	13	treatment
Mississauga(MS)- Leeann Tomkewich	6	treatment
ThunderBay(TB)- Ginette Blier	18	treatment
Barrie(B)- Mary Harber	5	treatment/prevention
Kingston(KI)-AWARE	4	treatment
Hamilton(H)- Micheal Deviller	4	treatment/prevention
St. Catherines(St.C) Heather Chalmers	10 8	treatment prevention
Metro Toronto(MT)- Barb Steep -Gwenne Woodward	10 8	treatment prevention
Simcoe(SM)- Toby Barrett	10	treatment
North Bay(NB)- Kathy Kilborne	13 12	treatment prevention
Windsor(W)- Blanche Beneteau	11	treatment
London(L)- Kristine Hollenberg	15	treatment
Whitby(WT)- Linda Corneal	3	treatment
Chatham(CT)- John Zarebski	9	treatment
Cornwall(C)- Peter Barkway	10 9	treatment prevention
Peterborough(PE)- Brian Mitchell	6	prevention
Sarnia(S)- Angie Chui	13	prevention
Kenora(K)- Lyle Nicol	10	prevention
TOTAL NUMBER OF KEY STAKEHOLDERS REACHED	207	75(36%) Prevention 141(64%) Treatment

Key Research Issues and Questions Identified in Prevention Discussion Groups

The sixth and last question in the prevention discussion groups solicited input on research needs. The discussion question was divided into two parts as follows;

a) " In what areas do you think we need more knowledge/research as it relates to preventing problem substance use in women."
b) " Are there specific research questions that come to mind"

One of the findings unique to the prevention discussion groups, was that the responses to part (b) of the question were, for the most part, not specific enough too present separately as viable research questions. We have therefore, grouped the responses from both parts of the questions under theme headings, with distinct comments from the discussion groups underneath. (SEE APPENDIX A for details)

Table 3 on the following page provides an indication of the key issues identified in the prevention discussion groups and the number of times the issue was raised.
The largest percentage (31.7%) of issues raised by key stakeholders in the prevention discussion groups related to the development of substance abuse prevention programs specifically aimed at the unique needs of women. The next key area raised by 22.2% of respondents, were the broad range of factors affecting women's lives (family issues, violence, self esteem issues), that have impact the prevention side of the continuum. It is interesting to note that tobacco use and women was the next biggest issue raised (7.9%) that was not an area raised by key stakeholders in the treatment discussion groups.

Key Research Issues and Questions Identified in Treatment Discussion Groups

The fifth of seven questions asked in the treatment discussion groups solicited input on research needs. The discussion question was divided into two parts as follows;

a) "In what areas do you think we need more knowledge/research as it relates to intervening with women with substance use problems."
b) "Are there specific research questions that come to mind."

The responses to this question in the treatment discussion groups could more easily be separated into research issues identified (SEE APPENDIX B for details), research questions (SEE APPENDIX C for details) and other issues raised by participants (SEE APPENDIX D). The range of issues gathered from across the province is quite diversified. The issues and questions were categorized into theme areas, with specific comments listed below.

Table 4 provides an overview of the theme areas that arose as issues (a) and specific research questions (b) in the treatment discussion groups and the number of times the issues arose.
The area of greatest interest to treatment key stakeholders (37.7%) not surprisingly was the range of issues affecting women seeking treatment, from gender specific assessment, to child care issues, to different target groups of women, to effective group models. As was the case in the prevention groups, the second largest (26.2%) theme area identified in the treatment groups was factors related to substance abuse specific to women, (ie: violence, family issues, early childhood victimization, social supports). One of the key areas also raised by participants (8.1%) was their concern for how we reach women and their entry into the system.

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Table 3: Key Prevention Research Issues Identified By Key Stakeholders By Theme Areas and Number of Responses

1.	Epidemiology & Patterns of Use of Alcohol & Other Drugs	4 (6.3%)
2.	Context of Substance Abuse	3 (4.8%)
3.	Study of Substance Abuse & Gender Differences	1 (1.6%)
4.	Substance Abuse, Women's Physiology, Genetic and Environmental Factors	3 (4.8%)
5.	Factors Related to Substance Abuse for Women	14 (22.2%)
	- *Family Issues & Substance Abuse*	1
	- *Violence Against Women & Substance Abuse*	6
	- *Self-Esteem & Substance Abuse*	5
	- *Other Factors Related to Use of Substances by Women*	2
6.	Development of Substance Abuse Prevention Programs for Women	20 (31.7%)
	- *Research on Gender Differences and Effectiveness of Women-Specific Prevention Strategies*	6
	- *Policy Initiatives for the Prevention of Substance Abuse Among Women*	3
	- *Prevention Initiatives Focusing on Coping, Resistance & Healthy Lifestyles*	7
	- *Research on Partners in Prevention Initiatives*	1
	- *Research on Different Sites for Prevention*	3
7.	Prevention Initiatives Targeting	3 (4.8%)
	- *Children at Risk*	2
	- *Elderly Women*	1
8.	Evaluation of Community Prevention Programs for Women	3 (4.8%)
9.	Women & Tobacco Use	5 (7.9%)
10.	Women & Prescription Drugs	1 (1.6%)
11.	Women & Solvent/Inhalant Abuse	2 (3.2%)
12.	Female and Male Substance Users, Fetal Development & Children	4 (6.3%)
	TOTAL NUMBER OF PREVENTION RESPONSES=	63 (100%)

Table 4: Key Treatment Research Issues Identified By Key Stakeholders By Theme Areas and Number of Responses

1.	*Epidemiology & Patterns of Use (a)*	*1(.74%)*
2.	*Substance Abuse & Women's Physiology (a)(b)*	*3(2.2%)*
3.	*Consequences of Substance Abuse For Women (a)*	*1(.74%)*
4.	*Factors Related to Substance Abuse for Women (a)(b)*	*35(26.2%)*
	-Family Issues & Substance Use	*3*
	-Violence Against Women & Substance Abuse	*11*
	-Early Childhood Victimization & Substance Abuse	*12*
	-Social Support, Social Isolation & Use of Substances By Women	*2*
	-Other Factors Related to the Substance Use	*7*
5.	*Recovery from Substance Abuse (a)(b)*	*2(1.5%)*
6.	*Barriers to Substance Abuse Treatment for Women (a)*	*2(1.5%)*
7.	*Women & Entry Into Treatment (a)*	*11(8.1%)*
8.	*Women & Addictions Treatment (a)*	*51(37.7%)*
	-Assessment Issues	*6*
	-Range of Issues Women Bring To Treatment	*7*
	-Development of Treatment Programs	*12*
	-Treating Different Target Groups of Women	*4*
	-Child Care & Development of Community Supports Related to Treatment	*7*
	-Issues Related to Aftercare	*7*
	-Mixed vs. Same Sex Treatment (b)	*2*
	-Effective Group Models for Women	*6*
9.	*Outcome Research on Women & Addictions Treatment (a)(b)*	*8(5.9%)*
10.	*Women & Prescription Drugs (a)(b)*	*3(2.2%)*
11.	*Substance Use in Institutional Settings (a)*	*2(1.5%)*
12.	*Female Substance Abusers, Fetal Development & Children (a)*	*3(2.2%)*
13.	*Eating Disorders (a)*	*3(2.2%)*
14.	*Characteristics of Female Abusers (b)*	*3(2.2%)*
15.	*Study of Gender Differences (a)*	*7(5.2%)*
	TOTAL NUMBER OF TREATMENT RESPONSES=	*135(100%)*

★ *(a) = research issue raised*
★★ *(b) = research question raised*

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Summary Remarks

This document provides an overview to one of the questions asked in the treatment and prevention discussion groups that focused on research needs identified by key stakeholders. There are likely many issues that arose from the other questions asked that have an impact on research. There will be a complete report prepared for the women's issues program leader by the end of April 1993, consolidating the responses to all the questions covered in the discussion groups. This report will in turn help shape the development of the Foundation's program plan for women's issues.

The immense response CPD program staff received from key stakeholders across Ontario, asking them to join the Foundation in identifying the research needs of women, is a strong indicator of the interest and commitment to this area in the field. The commitment shown by key stakeholders in our communities need to be seriously considered and matched by the Foundation's willingness to incorporate issues identified into the development of a responsive program plan aimed specifically at the needs of women. The discussion groups held on women's issues have reinforced the need to reach out to our communities and solicit their valuable input as an essential part of the process of deciding where our public funds are invested.

Appendix A

Women & Substance Abuse: Health Promotion and Prevention Issues and Related Research Questions

5. *Women & Substance Abuse: Health Promotion and Prevention Issues and Related Research Questions*

1. **Epidemiology & Patterns of Use of Alcohol & Other Drugs:**
   a) research on patterns of women's drinking and drug use (St.C.)
   b) progression of substance use problems for women (St.C.)
   c) the age most adolescent women start using/abusing drugs (C)
   d) % of single mothers abusing drugs/ alcohol (C)

2. **Context of Substance Abuse:**
   a) importance of placing substance use in context, including an understanding of a woman's community (MT)
   b) need to understand the motivations or reasons for substance use (alcohol, tobacco and other drugs), what substances are women using, how much, how often, when, under what circumstances, for what purposes (NB)
   c) oppression and poverty, the unique circumstances of a woman's life (AWARE)

3. **Study of Substance Abuse & Gender Differences:**
   a) how are women substance abusers like and unlike men (NB)

4. **Substance Abuse, Women's Physiology, Genetic and Environmental Factors:**
   a) more specific information about the effects of various substances on women's bodies (St.C.)
   b) the respective influences of "genetic" vs "social environment" on the development of substance abuse and by women (ie: What % of women become addicted because of genetic causes?) (C)
   c) identification of women predisposed to problem substance use (ie: What evidence is there that a genetic predisposition may exist in women who develop substance abuse problems) (C)

5. **Factors Related to Substance Abuse for Women:**

   Family Issues & Substance Abuse
   a) influence of unhealthy family backgrounds. (ie: What % of women addicted come from abusive backgrounds or alcoholic families? What is the effect of a dysfunctional family on potential substance abusers?) (C)

   Violence Against Women & Substance Abuse
   a) relationship of the experience of sexual abuse to the development of addictions problems (H)
   b) victimization/revictimization related to the development of substance abuse problems (H)
   c) connection between abuse and violence over the life span (NB)
   d) how women can recognize male issues that put them at risk (S)
   e) relationship between sexual abuse and substance abuse (AWARE)
   f) relationship between sexual abuse & substance abuse

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Self-Esteem & Substance Abuse

a) self-esteem differences between different groups of girls (given different educational experiences, other different circumstances and experiences) (H)
b) research on self-image, especially body-image and development of substance use problems (don't fight a war on drugs, fight a war on the things that drive people to drugs) (St.C.)
c) research on self-esteem issues for young girls (start early) (St.C.)
d) self esteem measurement tools (C)
e) effects of self-esteem and peer helping groups in the prevention of substance abuse (C)

Other Factors Related to Use of Substances by Women

a) relationship between substance abuse and depression (S)
b) research on the relationship between anger and addiction (St.C.)

6. Development of Substance Abuse Prevention Programs for Women:

Research on Gender Differences and Effectiveness of Women-Specific Prevention Strategies

a) what prevention and health promotion strategies work better with women (H)
b) research on reasons for the high degree of failure of prevention initiatives for women (S)
c) what strategies work best for women at different ages: pre-adolescent, adolescent, adults, elderly? (St.C.)
d) are male and female decision-making processes different? (St.C.)
e) research on women and their motivations to change, and motivating change (St.C.)
f) what are the differences between women and men with respect to what works with prevention (St.C.)

Policy Initiatives for the Prevention of Substance Abuse Among Women

a) research on promoting gender equality (NB)
b) research on effective approaches counteracting societal messages (e.g., taking "sex" out of advertising) (St.C.)
c) impact of lower insurance rates for non-smokers and non-drinkers (St.C.)

Prevention Initiatives Focusing on Coping, Resistance & Healthy Lifestyles

a) physical activity, exercise, relaxation techniques, stress-management as preventative, safe forms of risk-taking (H)
b) promotion of positive coping strategies as alternatives to substance use (NB)
c) identifying peer norms regarding use of substances, and determining ways to shift them (NB)
d) empowerment of women (St.C.)
e) research on the best way to teach skills on effectively declining use of substances ("saying no") (St.C.)
f) teaching good decision-making skills (St.C.)
g) why are non-users successful in avoiding substance abuse (C)

Research on Partners in Prevention Initiatives

a) consumer awareness, and physician and pharmacy involvement; possible

partnerships with pharmaceutical firms in order to take a more pro-active prevention and health promotion stance (MT)

Research on Different Sites for Prevention

a) assessment/early intervention strategies in settings where women present with other problems (H)
b) workplace situations and retirement seminars as possible sites for prevention efforts (MT)
c) mandate the schools to teach schools kids to say 'no' (substance abuse programs must be made part of the school curriculum) (St.C.)

7. Prevention Initiatives Targeting:

Children at Risk

a) prevention approaches with children of alcoholics (H)
b) prevention approaches with children who have witnessed abuse (H)

Elderly Women

a) healthy lifestyle choices for older women (H)

8. Evaluation of Community Prevention Programs for Women:

a) identify what works, and training required for people in the field (MT)
b) how much can we induce change (St.C.)
c) examining how community resources work for the interest of consumers (C)

9. Women & Tobacco Use:

a) addictiveness to smoking (K)
b) smoking withdrawal/effects (Pe)
c) why are young women are smoking more? (S)
d) smoking and depression as it relates to women (S)
e) tobacco use is a big concern, especially for young women (St.C.)

10. Women & Prescription Drugs:

a) prescribing practises, overmedication of women (AWARE)

11. Women & Solvent/Inhalant Abuse:

a) solvent abuse in women (H)
b) solvent/inhalant abuse issues (K)

12. Female and Male Substance Users, Fetal Development & Children:

a) medically detoxing pregnant women (H)
b) fetal alcohol syndrome/fetal inhalant syndrome (K)
c) how to address needs of FAS/FAE children, there are (and will be) more of them, and they are not infants anymore (NB)
d) effect of male substance use (including alcohol and other drugs) on fetal development (S)

Other Issues Related to Prevention and Health Promotion Research on Women and Substance Abuse

Training

- workshops on awareness, self-awareness for health educators (St.C.)
- should be more knowledge re: addictions by health professionals, not just factual information but also the dynamics of addiction. (C)

Dissemination of Available Research

- compile and distribute research that has already been done (St.C.)
- computerize the information that is available, in a standard, accessible format, and devise ways of making this generic to the service system (C)

Research Partnerships with Native Research Organizations

- there should be closer collaboration with NNADAP, including assistance in research projects (NB)
- perhaps consultation via focus groups with users would be a meaningful way of collecting qualitative data regarding this issue (C)

Major Concerns

- of all the issues that were raised, inhalants, solvents and sniffing generated the most discussion. This is a real concern in this part of the province. (K)

Treatment Issues Raised By Prevention and Health Promotion Participants

Development of Treatment Programs

- how do we get women to stop (St.C.)
- effectiveness of self help groups (ie: What % of women are helped with self help groups? Does counselling alone help, or does counselling and self help groups help?) (C)
- effectiveness of women's treatment approaches (C)

Women & Tobacco Use

- need for smoking treatment programs (Pe)
- effects of nicotine patches (Pe)
- why are success rates for smoking cessation higher for men than men (S)

Child Care & Development of Community Supports Related to Treatment

- development of community supports related to residential treatment (Pe)

Outcome Research on Women & Addictions Treatment

- research on reasons for the high failure rates for women in treatment (S)

Appendix B

Women & Substance Abuse: Research Areas and Issues Related to Treatment

5. (a) In what areas do you think we need more knowledge/research as it relates to intervening with women with substance use problems?

1. Epidemiology & Patterns of Use:
   a) rates and prevalence of substance abuse among women along the continuum (C)

2. Substance Abuse & Women's Physiology:
   a) need information on safe drinking levels for women that take into account size and age of women, research is also needed on safe levels of prescribed medications (O)
   b) need information on substance use & women's physiology (WT)

3. Consequences of Substance Abuse for Women:
   a) need research on women and organic brain syndrome (sometimes misdiagnosed as Alzheimer's disease) (B)

4. Factors Related to Substance Abuse for Women:

   Family Issues & Substance Use
   a) connection between history of family substance abuse and female substance abuse (St.C.)
   b) nature and extent of relationship between family background and substance abuse (C)
   c) research on family interventions (CT)

   Violence Against Women & Substance Abuse
   a) violence & lack of safety (L)
   b) violence and substance abuse (TB)
   c) sexual abuse and substance use (W)
   d) domestic violence issues (WT)
   e) sexual abuse (C)

   Early Childhood Victimization & Substance Abuse
   a) incest and substance abuse (L)
   b) early childhood trauma, substance abuse and coping mechanisms (L)
   c) research regarding link between childhood sexual abuse and addictions (O)
   d) emergent knowledge regarding link between childhood sexual abuse and substance abuse should be used to address such treatment questions as: what can the counsellor expect regarding issues that will be raised in treatment?, how can counsellors assist the client to move through and integrate the issues? (O)
   e) what components of alcohol and drug programs can or cannot be addressed when dealing with clients with sexual abuse histories, what issues must be addressed before addiction recovery (O)
   f) when should childhood sexual abuse issues be dealt with in group, when in individual counselling, etc. (O)
   g) need knowledge on mutilation and other forms of ritual abuse (from satanic cults to ritualized parental abuse (including spanking, closeting/isolating and scapegoating) (O)
   h) aftereffects of violence as victims or witnesses (O)

i) examine the adequacy of present models for survivors and how there needs to be a change in our way of thinking (St.C.)

Sexuality, Reproductive Functions & Use of Substances by Women

a) menopause (B)
b) premenstrual syndrome (PMS) (B)
c) hormonal, gynaecological, menstrual, menopausal, PMS issues need to be better understood in terms of relationship to addictions (H)
d) sexuality and substance use (W)
e) PMS (WT)

Social Support, Social Isolation & Use of Substances by Women

d) lack of social support (TB)
e) study relationship between social isolation and addictions in rural & native communities (TB)

Other Factors Related to the Use of Substances by Women

a) triggers for women (e.g. seasonal triggers -- high admissions in the summer) (H)
b) need for information, education regarding traumatic issues for women (e.g., loss of religion, coping with losses, etc.) (O)
c) research on societal attitudes about women regarding basic equalities (CT)

5. Recovery from Substance Abuse:
   a) research on natural recovery processes of women who achieved sobriety on their own and are stabilized, what worked for them in absence of formalized treatment (L)

6. Barriers to Substance Abuse Treatment for Women:
   a) what are the real barriers of women coming into treatment? (St.C.)

7. Women & Entry into Treatment:
   a) how to effectively facilitate access to treatment for women (MS)
   b) how to effectively reach women from different groups (e.g., the barriers of middle class therapist bias and low income women) (MS)
   c) effort required to effectively reach out to women often too overwhelmed by other life areas (MT)
   d) need to explore ways of coordinating support services external to the addiction treatment system that will facilitate women's access to treatment, i.e.: CAS temporary foster care (MT)
   e) what are the earlier points of intervention (e.g., death, illness, adoption, miscarriage, abortions?) (O)
   f) how can we educate caregivers (doctors, teachers) regarding warning signs, and get them to intervene (O)

8. Women & Addictions Treatment:

Assessment Issues:

a) validate assessment instruments/questionnaires on women (H)
b) gender sensitive assessment, what do women see their needs as being (MS)
c) effective tools for assessing individual needs in a holistic way (C)

Need To Consider the Range of Issues Women Bring to Addictions Treatment

a) other life area problems as priorities for treatment (MS)
b) substance abuse as coping mechanism (NB)
c) need to consider issues beyond substance abuse, substance abuse is often a coping mechanism, not the central problem (St.C.)
d) to develop greater understanding of concurrent disorders/issues and a treatment model which supports help/healing for all related issues (St.C.)
e) research on self-destructive behaviours in general (St.C.)
f) research on how to work on multiple issues when presented in treatment (St.C.)
g) addiction is often a problem that related to other problem areas in a woman's life (healing, safety needs, etc.) (TB)

Development of Treatment Programs

a) need to develop treatment modalities that will effectively address need to foster self-esteem & self-efficacy among women with addictions (L)
b) self-directed materials and tools for dealing with substance abuse issues (St.C.)
c) role of men in treatment programs, how do men trigger issues for women (eg., physical and sexual abuse issues, fear, addiction) or otherwise interfere or contribute to treatment processes (TB)
d) women can't recover under conditions of victim-blaming and oppression (TB)
e) need for treatment for women by non-oppressive women (TB)
f) need flexible treatment programs to meet needs of women (WT)
g) need for research on generalist vs specific treatment to address the needs of the addicted women (CT)
h) research on long-term treatment for women (CT)
i) research on self-help strategies (CT)

Need to Consider the Treatment Needs of Different Target Groups (St.C.)
Specific groups mentioned included:

- women with Alzheimer's disease (B)
- illiterate women (L)
- women with dual disorders (O) (W)
- women with AIDS (W) and HIV positive women (H) (W)

Child Care & Development of Community Supports Related to Treatment

a) temporary second stage housing for women requiring shelter (homeless women, women leaving abusive relationships) (L)
b) care of pets (L)
c) child care arrangements (including temporary foster care) for children of women entering treatment (MT)

d) need to address the needs of women whose children are being used to hold them hostage (e.g., women from remote reserves whose recovery is being sabotaged because of threats to children's safety, or threat of losing their children) (NB)
e) child care while mothers are getting help in therapy (C)

Issues Related to Aftercare

a) what are the issues specific to women related to relapse and re-addiction (MS)
b) aftercare in small or isolated and remote communities and native reserves (TB)
c) research on women-specific relapse prevention strategies (WT)

9. **Outcome Research on Women & Addictions Treatment:**
   a) evaluative studies on effectiveness of particular components of treatment for women (H)
   b) followup of women who drop out of treatment (H)
   c) consider outcomes from women's viewpoint (St.C.)
   d) look at outcomes with women (St.C.)

10. **Women & Prescription Drugs**
   a) need to look at overprescribing of medications to women (St.C.)

11. **Substance Use in Institutional Settings:**
   a) look at substance use in nursing homes (B)
   b) substance use in other institutions for women (B)

12. **Female Substance Abusers, Fetal Development & Children:**
   a) more research & information is needed on FAS/FAE (WT)
   b) more research is needed on effects of all drugs on the fetus (WT)

13. **Eating Disorders:**
   a) eating disorders (as substance abuse) (B) (W)
   b) effective treatment & prevention of eating disorders (WT)
   c) nature and extent of the relationship between eating disorders and substance abuse (C)

Appendix C

Women & Substance Abuse: Suggested Questions for Treatment Research

5. (b) Specific Research Questions From Stakeholders:

1. Substance Abuse and Women's Physiology
   a) need for basic biochemical research to address alcohol/drugs/stress interactions, (to contribute to the development of healthier alternatives that would help to modify stress, e.g., vitamin therapy, exercise, such spiritual options as meditation) (O)

2. Characteristics of Female Substance Abusers:
   a) Does a woman's substance of choice vary across economic levels, occupation, etc.? (MS)
   b) What are the characteristics of female substance abusers in general, across different target groups? (W)
   c) What works for female teenagers? (CT)

3. Study of Gender Differences in Substance Abuse:
   a) Is the disease concept gender-specific to men? Is the coping model of substance abuse specific to women? (NB)
   b) Are there differences in effective treatment for men and women? (St.C.)
   c) How does addiction affect a woman's life compared to a man's life? (St.C.)
   d) Are there gender differences in the development of addictions problems? (St.C.)
   e) Do women develop problems earlier than men, more easily? (St.C.)
   f) Is there a difference in the reasons for addiction between men and women? (CT)
   g) Is the efficacy of treatment of men and women the same? (CT)

4. Factors related to Substance Abuse for Women:

   Violence Against Women and Substance Abuse
   a) Substance abuse and domestic violence, how are they related? (B)
   b) What is the relationship between family violence and substance abuse? (H)
   c) How are alcoholism, violence/abuse, and incest related? (L)
   d) How are substance abuse and sexual abuse related for women? (NB)
   e) How is abuse and addiction interrelated? (include attention to the sequencing of events over time, using an interview-based, longitudinal research design) (NB)
   f) What impact does being in an abusive relationship have on substance use? (St.C)

   Early Childhood Victimization and Substance Abuse
   a) What is the relationship between early childhood trauma and development of substance abuse problems, and substance use as a coping mechanisms? (L)
   b) What does the experience of childhood abuse impact on substance abuse among teens? (St.C.)
   c) What is the relationship between childhood sexual abuse and substance abuse later in life for women? (St.C.)

   Other Factors Related to Use of Substances by Women

   a) Is there a relationship between Multiple Personality Disorder and disassociation and substance abuse? (NB)
   b) What problems with addictions do women with eating disorders have? (St.C.)

c) What is the relationship between self-esteem and addiction for women? (W)
d) What is the effect of social isolation on women's use of substances? (W)

5. **Recovery from Substance Abuse:**
   a) Does spontaneous remission happen in women? (St.C.)

6. **Barriers To Substance Abuse Treatment for Women:**
   a) What are the real barriers to treatment for women? (St.C.)

7. **Women & Entry Into Treatment:**
   a) What are some of the indicators of substance abuse problems for women that would help service providers identify female substance abusers? (B)
   b) Why are women coming into treatment? (MT)
   c) How can outreach to women be improved, how and where can we best reach women with substance abuse problems? (i.e., pamphlets are not adequate with respect to illiterate women, what about use of television? grocery stores as an outreach site? prenatal classes? shopping malls? materials in different languages are also needed) (MT)
   d) How we can access those who don't want to stop misusing substances, protect & serve them and their families? (NB)
   e) Where do women ask for help? (St.C.)

8. **Women & Addictions Treatment:**

   Assessment Issues
   a) Do assessment and case history schedules effectively capture treatment for women? (B)
   b) What issues specific to women should be considered at assessment (gender differences)? (St.C.)
   c) Please develop an assessment tool for and by women (C)

   Treatment Components and Approaches
   a) Appropriateness, effectiveness of empowerment versus confrontational approaches with female substance abusers? (B)
   b) Is it important to address assertiveness skills in treatment? (MS)
   c) How can programs best be adapted to respond to the social and cultural realities of women? (O)

   Family Issues in Treatment
   a) What is the relationship between substance abuse and parental neglect of children? (B)
   b) How can we best educate partners to be supportive regarding intervention and living in recovery? (O)

   Mixed vs. Same-Sex Treatment
   a) Do some women do better in mixed programs? (a study using a treatment matching design might be able to answer this) (H)
   b) At what stages of recovery are mixed versus same-sex groups effective for women? (H)

Effective Group Models for Women

a) Are group modalities effective for women? If so, what kind? (O)
b) How can trust issues in groups best be addressed for women? (W)
c) Are support groups an effective intervention for women in treatment? (LESA)
d) What brings women together to sustain a commitment to a group? (LESA)
e) What is successful about women's groups in general, outside of addictions treatment? What brings women together? What do they do? What do they get out of the group? What makes them stay? When it doesn't work, why doesn't it work? (apply to women's groups in addictions treatment) (LESA)
f) Are some women more responsive to group experiences than other women? If so, what are the factors that differentiate between these women (age, education, work experience, philosophy, leisure experience) (LESA)

Women Leaving Treatment

a) Why do women drop out of treatment programs? (MT)
b) What happens after women leave treatment? (NB)
c) Is residential aftercare a viable alternative for women? (NB)
d) How does social isolation affect women's prospects for recovery after treatment? (W)

9. Evaluation of Addictions Treatment for Women:
   a) What treatment works for women? (MS)
   b) What interventions work best for women? (MT)
   c) What are the benefits of treating women vs the inherent costs to family, workplace, society of failing to treat women's substance abuse problems? (MT)
   d) What kinds of treatment work best for women? (outpatient, in-patient, long-term, short-term, individual, group) (O)

10. Research on Women & Tobacco Use
   a) see the recent national smoking report for research recommendations related to women and smoking (NB)

11. Women & Prescription Drugs:
   a) doctors should be encouraged to consider alternatives to prescribing drugs for women; women should feel comfortable discussing alternatives to drugs with their family physicians – What interventions can help achieve this? (MS)
   b) how can we reach and engage isolated women with prescription drug problems? (O)

12. Female Substance Abusers, Fetal Development and Children:
   a) How to best deal with the problems faced by FAS children and other children affected by drugs (cocaine babies, etc.)? (not enough known is known about drug abuse limits) (MS)

Appendix D

Women & Substance Abuse: Other Issues Raised by Treatment Participants

Other Issues Related to Treatment Research on Women Substance Abusers

Research and Research Methodology

- use of case studies of the recovery of famous women (e.g., Whoppie Goldberg) as role models and models of change (L)
- research should be salient and useful (O)
- current research is male-oriented, research needs to be done by women who are sensitive to women's issues (St.C.)
- we need people who are able to listen to women (AWARE)

Dissemination of Available Research

- participants were not aware of a lot of research on women and substance abuse and substance abuse treatment (MS)
- the knowledge is already there, it needs only to be acted on (see the *Vision for the 90's* report, the *DHC Advisory Committee Response to Vision for the 90's*, the *Black Report*, etc.) (TB)
- there is already tons of knowledge and research available on women and substance abuse for those who are interested in learning about it (AWARE)

Government Funding and Policy

- government funding policy needs to be research driven (H)
- how can funding be reallocated to fit the needs of women in treatment (TB)
- how can all the required ministries cooperate in the dissemination of funds and program development to create a treatment model that is responsive to women's needs (TB)

ARF's Leadership Role

- ARF should lead the field in these areas as few will have the interest (W)
- we have had more difficulty recruiting women, and maintaining their interest in support groups than men. ARF could work on developing a support group model that is effective for women. (LESA)

Prevention Related Issues Raised by Treatment Participants

- need for school prevention programs (more education in the schools), especially for young women (M)
- need for workplace education programs, especially in larger corporations (need to give educational time during the day) (M)
- identifying children at risk of substance abuse (W)

Prevention Questions Raised By Treatment Discussion Groups:

a) What is the effect of advertising/media portrayals on women's consumption patterns? (C)
b) What might be the benefit of educating 11-13 year olds in gender-specific classes, re: alcohol/drugs.
c) What influence do the current social models of young women have on the development of substance abuse problems; and how do young women cope with the pressures to live up to these models? (C)

APPENDIX C

Community Consultation on Research Needs

COMMUNITY CONSULTATION ON RESEARCH NEEDS
INTERNATIONAL WOMEN'S DAY, 1993

For the Task Group on Gender Focused Research
March, 1993.

Agency representatives who attended the Addiction Research Foundation's International Women's Day Guest Lecture were invited to participate in discussions of research needs as part of a consultation process for the Foundation's Task Group on Gender Focused Research. Participants came from agencies providing a wide range of services to women and were not limited to those concerned primarily with the treatment of alcohol and drug problems.

Three discussion groups were held; discussion group facilitators were issued questions related to research and development needs in the areas of primary prevention, secondary prevention or early identification in general health and social service settings, and alcohol or drug treatment settings.

Primary Prevention Discussion Group:

In what areas do you think we need more knowledge or research as it relates to substance use in women?

- Political, economic and social factors related to women's substance use.
- Role of race, class, sexual orientation, and sexual discrimination as factors in women's substance use, as well as issues in the development of programming.
- Role of family history (both genetic and environmental factors).
- Role of self-esteem.
- Role of depression.
- Women's multiple roles or role deprivation.
- Workplace issues such as the type of work or the amount of control given to women in the work place.

Are there models of prevention programs that need to be developed for high risk women?

- Programs contributing to economic stability including jobs and housing.
- Programs capable of reaching hard-to-reach and isolated women.
- Programs that provide support networks for women.
- Programs to help women deal with other people's drinking and its impact on their consumption.
- Programs that take into account child care issues, food and shelter, and are sensitive to the backgrounds of different women.

Are there factors related to the development of substance use problems in women for which you think specific prevention materials need to be developed?

- Materials on interaction of alcohol and prescription drugs.
- Non judgmental materials on FAS.
- Materials highlighting high risk situations for women.
- Materials to help women ask their doctor questions about alcohol and drugs.
- Materials for high risk groups that are not traditionally recognized e.g.; lesbians.
- Information on women's different physiology and sensitivity to the effects of alcohol and other drugs.

Secondary Prevention Discussion Group:

What areas of knowledge/research are needed by general health and social service settings regarding early identification of women with substance use problems, and engaging them in treatment?

- Education of physicians about responsible prescribing of psychotropic drugs.
- Research on the influence of physicians' prescribing practices in the development of drug problems for women.
- Research on the extent to which women are aware of options other than psychoactive drugs for various problems.
- Sexual abuse and domestic violence as risk factors in the development of alcohol and drug problems
- Early identification and treatment of sexual abuse before substance abuse problems develop.
- Partner's consumption pattern as a risk factor in the development of alcohol and drug problems
- Sensitive, culturally appropriate training and education of school counselors and psychologists in both addictions and other issues such as physical and sexual abuse.
- Sensitive, culturally appropriate training and education of substance abuse counselors and treatment workers in dealing with problems of abuse and other relevant issues.

In what areas do we need more knowledge/research about barriers women face in getting help for substance abuse problems in general health or social service settings?

Research is needed on potential barriers to treatment including:

- Language accessibility.
- Economic barriers.
- Lack of trained professionals or services, particularly in rural areas.
- Other domestic and community responsibilities e.g.; women's role as primary caregiver for children or the elderly.
- Cultural factors such as age, race, ethnicity, and sexual orientation.

- Issues of self-esteem.
- Lack of support for initiating treatment.
- Availability of all-women treatment settings.
- Lack of available outpatient services.

In intervening with substance abusing women in these settings, are there ways in which current addiction treatment models do not meet the needs of women?

- Women need treatment that addresses all relevant life issues, rather than treatment focusing only on substance abuse.
- Needs assessments to address issues relevant to various sub-groups of women.
- "Safe" treatment environments where other issues can be disclosed.
- Training of addictions workers in the area of physical and sexual abuse, cultural differences, issues of sexual orientation, and psychiatric problems.
- Training of mental health workers in the area of substance abuse.

Addiction Specific Treatment Discussion Group:

Are there ways in which current models of addiction treatment are not appropriate or do not meet the needs of women? What areas of knowledge would improve the situation?

There was agreement among the participants that a traditional, male model of treatment was inappropriate and did not meet the needs of women clients, but there was no general consensus about what models were more appropriate. Participants identified the following treatment research issues in the discussion that followed.

- Generalized versus addiction specific treatment.
- Individual versus group treatment.
- Short term versus long term treatment:
- Therapist effects: Does the gender of the therapist impact on treatment outcome?
- Assessment Issues.
- Detoxification Issues: There is a need for accurate information about how to detoxify clients using prescription drugs such as benzodiazepines.
- Special Needs: Women are not a homogeneous group and there is a need to match treatment and client. Certain groups of women were identified as having special needs. For example, women with children were seen as one such group. Having children was seen as a barrier to treatment that required the provision of daycare.
- Physical, emotional and sexual abuse: There was concern about how and when to address the issues of abuse in the treatment process. Participants expressed the need for more knowledge and training to deal with victims of ritual abuse seeking help for alcohol and drug problems.

Development and Dissemination Issues:

Dissemination of scientific knowledge and information to the community was identified as a problem by many participants. One participant reported the need for knowledge and practical "how to" information. All participants agreed that information sharing among agencies was important, and that the Addiction Research Foundation facilitated this process by sponsoring events such as the International Women's Day Lecture.

APPENDIX D

Policies on Gender in Research from External Institutions & Granting Agencies

SELECTED RESEARCH POLICY GUIDELINES ON GENDER

Compiled for the Task Group on Gender Focused Research
Spring, 1993.

Public Health Service Task Force on Women's Health Issues, 1985.

In 1983, the U.S. Assistant Secretary for Health established a Public Health Service Task Force on Women's Health Issues with a broad mandate to address health concerns of women. The Task Force reviewed information on diseases or conditions that were 1) unique to women, 2) more prevalent in women, 3) more serious in women, 4) having different risk factors in women, 5) having interventions which are different for women or some subgroup of women.
The two-part report issued in 1985, included a number of recommendations on conducting research and evaluation:

- Expand research on conditions that are unique to women or that are more prevalent in women.
- Use longitudinal research to assess the interaction of behavioral, social, and biological factors.
- Collect and analyze health data by age, sex, and race.
- Study workplace hazards for women.
- Study how culture and socialization affect women's and men's health differently.

The Task Force noted that a systematic effort must be made to address issues related to gender bias in research and clinical practice that lead to inadequate attention to the needs of women. The Task Force made the following recommendations to bring about change:

- Issue a Public Health Service policy directing all units to review their research guidelines to ensure that sex differences are routinely studied, wherever feasible.
- Require that the post-marketing of all prescription drugs include reporting of adverse effects in women of drug interactions with alcohol, commonly used psychotherapeutic drugs, and drugs commonly used in relation to hormonal change in women.
- Require that adequate numbers of women be included in clinical trials of drugs that will be used by women, and that results be reported separately by gender for all new drugs that are to be recommended for use by women.

- An interdisciplinary panel of scientists should review existing research and research methodology to develop a comprehensive plan for addressing any gender bias identified in research in general, but in particular in alcohol, drug abuse, and mental health research.

- A Task Force should be established to review mental health issues related to women and make recommendations for changes in the Fourth Revision of the Diagnostic and Statistical Manual of the American Psychiatric Association.

National Institutes of Health / Alcohol, Drug Abuse and Mental Health Administration (NIH/ADAMHA) Policy Concerning Inclusion of Women in Study Populations (NIH Guide,1990)

Although the NIH announced its policy for including women in research study populations in 1986 as a result of recommendations of the PHS Task Force Report on Women's Health Issues, the policy guidelines were not published and consistently applied before the creation of the Office of Research on Women's Health in 1990. The NIH policy concerning the inclusion of women in study populations is summarized below.

- Clinical research findings should be of benefit to all persons at risk of the disease regardless of gender.

- Studies should include both genders in such a way that results are applicable to the general population and reasons for excluding women or men must be well explained and justified by grant applications.

- Peer reviewers will evaluate the proposed gender composition of the study population and an inadequate number of women will be considered a weakness.

- Well supported justification must be provided for studies on men only or when the proportion of women does not reflect the gender prevalence of the disease.

- When gender differences are anticipated inclusion of an evaluation of gender differences should be considered.

- Regardless of the relevance of the proposed research, it will not be funded if it does not comply with this policy.

National Council on Alcoholism Inc.
NCA Policy Statement: Women, Alcohol and Other Drugs. April 28, 1988.

The National Council on Alcoholism Inc. is a U.S. non-profit organization in the field of prevention and education, public information, medical and scientific information and public policy advocacy related to alcohol and drug abuse. NCA supports policies which will enhance programs for alcoholic and other drug dependent women in the areas of prevention, education, treatment, and research. The recommendations made in the NCA Policy Statement on Women, Alcohol, and Other Drugs are divided into specific categories encompassing Congressional and Executive Branch policy, treatment licensing body requirements, accreditation, the criminal justice system, media, and research.

Recommended policies regarding Research:

- Both private and public sector researchers should be encouraged to over sample women in their research studies.

- Researchers who are analyzing alcohol's effects on the body and conducting national surveys of alcohol consumption should take into account sex differences in body weight and body water content.

- Researchers should be encouraged to conduct studies which look at the nature and consequences of dual addictions in women.

NCA also makes policy recommendations concerning allocation of funds to services for women, training for health care professionals in women's issues, legislation requiring insurance companies to provide adequate coverage for alcohol/drug treatment, national daycare legislation, legislation requiring rotating health warnings on all alcoholic beverages, establishment of demonstration projects, public information campaigns, culturally and linguistically appropriate educational materials.

NCA also recommends minimum standards for funding of treatment centres which includes program content relevant to women, a plan for addressing the needs of women with children, staff trained and sensitive to women, cooperative agreements with relevant service organizations, safe and accessible location, and adequate staff and board composition of women.

NCA includes recommendations on training and education for members of the criminal justice system in such issues as alcoholism / drug addiction and the relationship to crimes of violence, domestic violence, child abuse and impaired driving.

Women's Health:
FDA Needs to Ensure more study of gender differences in prescription drug testing. A Report of the U.S. General Accounting Office, 1992.

The US Food and Drug Administration's primary responsibility related to pharmaceuticals is to approve new drugs before they are marketed to the public. At the request of members of Congress who expressed concern that women might be at risk if the FDA guidelines for drug testing did not ensure sufficient representation of women in clinical trials, the US General Accounting Office reviewed the FDA's policies and the pharmaceutical industry's practice regarding research on women in prescription drug testing.
The General Accounting Office reviewed drug manufacturers' testing practices for FDA approved drugs containing new chemical properties over a three year period from 1988-1991. Criteria used in the GAO review included the following :

- the representation of women in drug testing,
- the sufficiency of female participation in drug trials to assess significant gender-related differences,
- the extent to which trial data were analyzed for differences in response related to gender,
- whether studies were conducted to examine drug interaction with the varying hormonal status of women and oral contraceptive use.

Based on results of the GOA survey, recommendations were made to ensure that FDA Policy Guidelines are clear on when enough women are included in drug trials to assess potential differences in safety and effectiveness by gender, and make analysis of data by gender a requirement.

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